Data Elements for Emergency Department Systems

Release 1.0

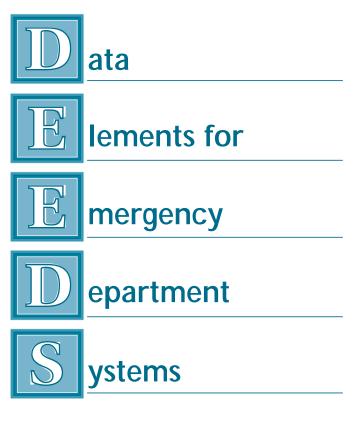# **D**ata
Elements for
Emergency
Department
Systems

Release 1.0

National Center for Injury Prevention and Control
Atlanta, Georgia

1997

Data Elements for Emergency Department Systems, Release 1.0 (DEEDS) is the result of contributions by participants in the National Workshop on Emergency Department Data, held January 23-25, 1996, in Atlanta, Georgia, subsequent review and comment by individuals who read *Release 1.0* in draft form, and finalization by a multidisciplinary writing committee. *DEEDS* is a set of recommendations published by the National Center for Injury Prevention and Control of the Centers for Disease Control and Prevention:

<div align="center">

Centers for Disease Control and Prevention
David Satcher, MD, PhD, Director

National Center for Injury Prevention and Control
Mark L. Rosenberg, MD, MPP, Director

**Division of Acute Care, Rehabilitation Research,
and Disability Prevention**
Richard J. Waxweiler, PhD, Director

Acute Care Team
Daniel A. Pollock, MD, Leader

</div>

Production services were provided by the staff of the Office of Communication Resources, National Center for Injury Prevention and Control, and the Management Analysis and Services Office:

<div align="center">

Editing
Valerie R. Johnson

Cover Design and Layout
Barbara B. Lord

</div>

Use of trade names is for identification only and does not constitute endorsement by the U.S. Department of Health and Human Services. This document and subsequent revisions can be found at the National Center for Injury Prevention and Control Web site:

<div align="center">

http://www.cdc.gov/ncipc/pub-res/deedspage.htm

</div>

DEEDS WRITING COMMITTEE

Chair

DANIEL A. POLLOCK, MD
National Center for
    Injury Prevention and Control
Centers for Disease Control and Prevention

DIANE L. ADAMS, MD, MPH
Agency for Health Care Policy and Research

LISA MARIE BERNARDO, RN, PhD
Emergency Nurses Association

VICKY BRADLEY, RN, MS
Emergency Nurses Association

MARY D. BRANDT, MBA, RRA, CHE
American Health Information
    Management Association

TIMOTHY E. DAVIS, MD
National Center for
    Injury Prevention and Control
Centers for Disease Control and Prevention

HERBERT G. GARRISON, MD, MPH
National Association of Emergency
    Medical Services Physicians

RICHARD M. ISEKE, MD
American College of Emergency Physicians

SANDY JOHNSON, MSSA
National Highway Traffic Safety
    Administration

CHRISTOPH R. KAUFMANN, MD, MPH
Health Resources and Services
    Administration

PAMELA KIDD, PhD, ARNP
Emergency Nurses Association

NELLY LEON-CHISEN, RRA
American Hospital Association

SUSAN MacLEAN, RN, PhD
Emergency Nurses Association

ANNE MANTON, RN, PhD
Emergency Nurses Association

PHILIP W. McCLAIN, MS
National Center for
    Injury Prevention and Control
Centers for Disease Control and Prevention

EDWARD A. MICHELSON, MD
American College of Emergency Physicians

DONNA PICKETT, RRA, MPH
National Center for Health Statistics
Centers for Disease Control and Prevention

ROBERT A. ROSEN, MD
American College of Emergency Physicians

ROBERT J. SCHWARTZ, MD, MPH
Society for Academic Emergency Medicine

MARK SMITH, MD
American College of Emergency Physicians

JOAN A. SNYDER, RN, MS
Emergency Nurses Association

JOSEPH L. WRIGHT, MD, MPH
National Medical Association

ACKNOWLEDGMENTS

CONTENTS

INTRODUCTION

Hospital emergency departments (EDs) in the United States serve a unique role in health care delivery. They are the only institutional providers mandated by federal law to evaluate anyone seeking care. They are expected at least to stabilize the most severely ill and injured patients, and they are primary care providers for vast numbers of people who lack access to a regular source of health care services. Because of the case mix and volume of patients they treat, the estimated 4,800 EDs in the United States are well positioned to provide data for public health surveillance, community risk assessment, research, education, training, quality improvement, health care administration and finance, and other uses (Garrison et al., 1994). However, variations in the way that data are entered in different ED record systems, and even within individual systems, impede the use of ED records for patient care and deter their reuse for multiple secondary applications. The content and format of records differ from site to site, and incompatibilities exist in many data definitions and codes. Further standardization is needed, particularly if the rapidly accelerating pace of computerization is to facilitate rather than complicate aggregation and analysis of data from multiple EDs.

Several related initiatives are under way in the United States to foster more uniform emergency care data. The Centers for Disease Control and Prevention's (CDC) National Center for Injury Prevention and Control (NCIPC) is coordinating one of these initiatives — a public-private partnership that has developed recommended specifications for many of the observations, actions, instructions, and conclusions that are entered in ED records. *Data Elements for Emergency Department Systems, Release 1.0* (*DEEDS*) is the initial product of this broad-based, collaborative effort.

Purpose and Scope

DEEDS is intended for voluntary use by individuals and organizations responsible for maintaining or improving record systems in 24-hour, hospital-based EDs. *DEEDS* is not a set of mandates, but rather it is designed to provide uniform specifications for data elements that decision makers may choose to retain, revise, or add to their ED record systems. The purpose of *DEEDS* is not to establish an essential or minimum data set but to foster greater uniformity among individual data elements chosen for use. If the recommended data elements are uniformly recorded and the data are made available with appropriate safeguards to numerous legitimate users, then problems — such as data incompatibility and high costs of collecting, linking, and using data — can be substantially reduced. Concurrent with progress toward more uniform and accessible health data, existing methods of protecting the confidentiality of patient-, practitioner-, and institution-specific data must be strengthened (Institute of Medicine, 1994).

To the fullest extent possible, the specifications for individual data elements in *Release 1.0* incorporate existing health data standards, particularly standards for computer-based records. A major objective of the *DEEDS* initiative is to provide uniform data elements that harmonize with prevailing standards for electronic data entry and exchange. However, many specifications also are relevant to paper-based records, which EDs throughout the United States are likely to use to a varying extent for years to come.

Release 1.0 is designed to serve as a compendium of data elements and as a technical reference on automation of ED data. The 156 data elements are organized into eight sections and numbered sequentially within each section. A structured format is used to document each data element: a concise **Definition**, a description of **Uses**, a **Discussion** of conceptual or operational issues, specification of the **Data Type (and Field Length)**, a description of when data element **Repetition** may occur, **Field Values** that designate coding specifications and valid data entries, reference to one or more **Data Standards or Guidelines** used to define the data element and its field values, and **Other References** considered in developing the data element. Data types and field lengths used in *Release 1.0* conform to specifications in *Health Level 7 (HL7)*, a widely used protocol for electronic data exchange (HL7, 1996), and *ASTM's* (formerly known as the American Society for Testing and Materials) *E1238-94: Standard Specification for Transferring Clinical Observations Between Independent Computer Systems* (ASTM, 1994). The Technical Notes at the end of this document provide a detailed description of data types and conventions for addressing missing, unknown, and null data as well as recommendations for dealing with data elements that are not applicable to selected groups of patients. The Appendix outlines how the data elements can be mapped to *HL7* data fields and segments. Readers may refer to the Technical Notes and Appendix as needed to answer specific questions.

Release 1.0's scope of coverage comprises data elements that can serve multiple secondary purposes once they have been used for immediate patient care and administrative functions. Among the most important of these elements are those diagnoses of patients' conditions that practitioners typically record at the end of visits. Because of the clinical services they provide, ED practitioners often make diagnoses that call for preventive countermeasures at the individual and population levels. For example, when some conditions are diagnosed (e.g., suspected child abuse), ED staff are mandated by law to communicate findings to agencies that protect the safety of at-risk individuals. With other ED diagnoses (e.g., meningococcal disease), staff must transmit data to public health agencies responsible for preventing and controlling disease outbreaks.

Additional data elements, beyond the scope of *Release 1.0*, are needed to ensure that records of individual ED visits are complete. These data elements include documentation of patients' informed consent to disclose person-identifiable data to authorized users. The multidisciplinary process that produced *Release 1.0* can be used in the future to develop specifications for additional data elements.

Several data elements in *Release 1.0* are not routinely recorded in EDs, but interest in their use is mounting. For example, more routine collection of observations about ED patient outcomes and patient satisfaction is on the horizon. The patient outcomes and patient satisfaction data elements in *Release 1.0* provide a framework for data entry, but further work is needed to develop methods of gathering and analyzing relevant observations.

The scope of *Release 1.0* is not limited to data recorded by physicians and nurses. Patient identifiers entered by registration personnel, clinical data recorded by allied health professionals, and medical codes assigned by health information specialists also are included.

How *DEEDS* Was Developed

The impetus for developing *DEEDS* was a 1994 national conference on the status of emergency medicine sponsored by the Josiah Macy, Jr. Foundation (Bowles, 1995). Numerous Macy conference participants acknowledged that shortcomings in available data limit our capacity to answer many fundamental clinical, epidemiologic, and health care service questions about ED patients. As a result, participants representing the major emergency medicine and nursing professional associations expressed a keen interest in joining CDC in sponsoring a national workshop on the development of ED record systems.

CDC invited six professional associations and three federal agencies to cosponsor, plan, and convene the National Workshop on Emergency Department Data — the Agency for Health Care Policy and Research, American College of Emergency Physicians, American Health Information Management Association, American Hospital Association, Emergency Nurses Association, Health Resources and Services Administration, National Association of Emergency Medical Services Physicians, National Highway Traffic Safety Administration, and Society for Academic Emergency Medicine.

Representatives of these agencies and associations (the workshop planning group) met in 1994 and 1995 to define the goals for the workshop, set the agenda, draft the proposed data elements, invite other agencies and organizations to participate, and select workshop facilitators. The National Workshop on Emergency Department Data was held in January 1996, providing a public forum for review and discussion of an early draft of *DEEDS*. The 160 workshop participants, among them representatives of 12 federal agencies and 35 professional associations, contributed many valuable recommendations for improving the document. The workshop planning group and facilitators, reconstituted as the *DEEDS* Writing Committee, met in April 1996 and incorporated as many workshop recommendations as possible into a revised version of the data elements. Review of this revision began in July 1996. The *DEEDS* Writing Committee met again in October 1996 to act on reviewers' input and completed work on *Release 1.0* in January 1997.

Next Steps

This initial release of *DEEDS* is intended to serve as a starting point. Many data element definitions and coding specifications are new, and field testing is necessary to evaluate them. Systematic field studies are needed to gauge the usefulness of *Release 1.0* for direct patient care and a variety of secondary purposes, identify optimal methods of data collection, and specify resource requirements for implementation. Prospective users of *Release 1.0* are invited to contact Daniel A. Pollock, M.D., at NCIPC to discuss their plans for evaluating or using some or all of the recommended data elements. Lessons learned through field use and evaluation will be a valuable source of input for subsequent revisions, but all comments and suggestions for improving *DEEDS* are welcome.

For some data elements in *Release 1.0,* additional research and development are needed to design coding specifications or to select a coding system from the available candidates. Work is needed on codes for emergency contact relationship, chief complaint,

medication identifiers, clinical finding type, procedure indication, procedure result, referral, outcome observation, and patient satisfaction. Pending this additional work, users can select from available national or international coding systems, locally developed codes, or descriptive text entries. Users also may introduce expanded versions of codes specified in *Release 1.0* data elements to meet local needs for more detailed data. For example, users can expand the codes for patient ethnicity by subdividing the two specified groups (*Hispanic* and *Not of Hispanic Origin*) into more detailed subgroups. Users must make sure that subdivided codes can be combined into parent codes to avoid problems with data aggregation and comparison.

Another factor that will influence how *DEEDS* is used is the movement of many EDs to a paperless or nearly paperless patient record system, albeit at a pace that differs from facility to facility. Data entry technology is advancing rapidly, and the proportion of data entered by hand is decreasing. Direct electronic transmission, telemetry, and increasingly sophisticated dictation systems will become even more important factors in data entry. As advances in information technology are introduced, the burden of entering data will lessen, and the call for more timely, accurate, and useful ED data will intensify.

Although computerization of ED records offers opportunities to improve data collection, linkage, and exchange, it also presents challenges to data security. The prospect of increasing the availability of ED data raises concerns about the unauthorized acquisition of data. Protection of patient, practitioner, and institutional confidentiality requires that persons responsible for implementing or maintaining computer-based ED record systems guard against unauthorized data access and disclosure (Office of Technology Assessment, 1993).

Further work will be needed to revise *DEEDS* as a result of field testing, new developments in health data standards, advances in information technology, and changes in ED data needs. To assure that necessary changes are incorporated in a timely manner, CDC plans to coordinate a multidisciplinary review of *DEEDS* beginning 6 to 12 months after distribution of the initial release. The partnership and process used to develop *DEEDS, Release 1.0* provides a valuable precedent for future review and revision.

Please send questions or suggestions for improving *DEEDS* to:

> Daniel A. Pollock, MD
> NCIPC (Mail Stop F-41)
> CDC
> 4770 Buford Highway NE
> Atlanta, Georgia 30341-3724
> Telephone: (770) 488-4031
> Fax: (770) 488-4338
> E-mail: DAP1@CDC.GOV

Patient Identification Data

SECTION 1

Definition

Primary identifier used by facility to identify patient at admission (e.g., medical record number).

Uses

The facility's internal identifier allows appropriate data exchange between approved parties while health care is being delivered and ensures that accessed, entered, or altered records correspond with the proper patient. It also facilitates data linkage for administrative and research purposes.

Discussion

Until a universal patient identifier is established, a locally assigned identifier is needed. To protect patient privacy and confidentiality, access to this data element must be limited to authorized personnel.

Data Type (and Field Length)

CX — extended composite ID with check digit (20).

Repetition

No.

Field Values

Component 1 is the identifier.
Component 2 is the check digit.
Component 3 is the code indicating the check digit scheme employed.
Components 4–6 are not used unless needed for local purposes.

Enter the primary identifier used by the facility to identify the patient in Component 1. If none or unknown is applicable, then enter "" or Unknown in Component 1, and do not make entries in the remaining components. Components 2 and 3 are for optional use when a check digit scheme is employed.

Example, when M11 refers to the algorithm used to generate the check digit:
Component 1 = 1234567
Component 2 = 6
Component 3 = M11

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

1.02 ◆ NAME

Definition

Legal name of patient.

Uses

This basic information enables the ED data user to identify most records without resorting to codified identifiers or cross-reference schemes.

Discussion

The legal name is usually the name on a birth certificate, a current married name, or another name sanctioned by the legal system. In some cases, it may be the name on a passport or other official immigration documentation. To protect patient privacy and confidentiality, access to this data element must be limited to authorized personnel.

Data Type (and Field Length)

XPN — extended person name (48).

Repetition

No.

Field Values

Component 1 is the family name.
Component 2 is the given name.
Component 3 is the middle name or initial.
Component 4 is the suffix (e.g., Jr).
Component 5 is the prefix.
Component 6 is the degree (e.g., Dr).
Component 7 is the code for the name type (defaults to L, indicating legal name).

Example:
Component 1 = Smith
Component 2 = John
Component 3 = A

Enter Unknown in Component 1 if the entire name is unknown. In other components, "" (none) or Unknown may be entered when appropriate. Entries are not made in Components 4–7 when they are not needed.

Data Standards or Guidelines

E1238-94 (ASTM, 1994), *E1384-96* (ASTM, 1996), and *Health Level 7, Version 2.3* (HL7, 1996).

Other References

None.

Definition

Any names patient has been known by other than current legal name.

Uses

The alias provides alternative information that may be used to identify the record without resorting to codified identifiers or cross-reference schemes.

Discussion

The alias includes all names used by the patient other than the current legal name (e.g., previous name, alias, aka [also known as], street name, nickname, or previous name that was legally changed). Inclusion of all other names used by an individual will allow cross-referencing and eventual merging of any duplicate medical records. To protect patient privacy and confidentiality, access to this data element must be limited to authorized personnel.

Data Type (and Field Length)

XPN — extended person name (48).

Repetition

Yes, if the patient is known to have used more than one alias.

Field Values

Component 1 is the family name.
Component 2 is the given name.
Component 3 is the middle name or initial.
Component 4 is the suffix (e.g., Jr).
Component 5 is the prefix (e.g., Dr).
Component 6 is the degree (e.g., DDS).
Component 7 is the code for the name type (defaults to A, indicating alias).

Example:
Component 1 = Crane
Component 2 = Ichabod
Component 3 = X

Enter "" in Component 1 if the patient has no alias, and enter Unknown in Component 1 if it is known that the patient has an alias but the name is not known. In other components, "" (none) or Unknown may be entered when appropriate. Entries are not made in Components 4–7 when they are not needed.

Data Standards or Guidelines

None.

Other References

None.

DATE OF BIRTH

Definition

Patient's date of birth.

Uses

Date of birth can be used to calculate the patient's age, to distinguish between patients with the same name, and to provide discriminatory power in probabilistic linkage of patient records.

Discussion

Time can be included for newborns. Date of birth can be estimated from the patient's age (see method recommended under TS — time stamp in the Technical Notes at the end of this document).

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

Year, month, and day of birth are entered in the format YYYYMMDD. For example, a birth date of August 12, 1946, would be encoded as 19460812. Date and time of birth are entered in the format YYYYMMDDHHMM. For example, a birth at 10:30 pm on June 1, 1997, would be encoded as 199706012230.

Data Standards or Guidelines

E1384-96 (ASTM, 1996) and *Health Level 7, Version 2.3* (HL7, 1996).

Other References

None.

Definition

Sex of patient.

Uses

The patient's sex is standard demographic and identifying information used in clinical care and for multiple additional purposes.

Discussion

None.

Data Type (and Field Length)

IS — coded value for user-defined tables (1).

Repetition

No.

Field Values

Code	Description
M	Male
F	Female
U	Unknown or undetermined

Data Standards or Guidelines

E1384-96 (ASTM, 1996) and *Health Level 7, Version 2.3* (HL7, 1996).

Other References

None.

1.06 # RACE

Definition

Race of patient.

Uses

Although the biological significance of race has been deeply undermined, data on race retain practical, albeit limited, applications in clinical medicine (e.g., in evaluating the probability of a diagnosis of sickle cell disease or cystic fibrosis). Data on race are used frequently in public health surveillance and epidemiologic, clinical, and health services research.

Discussion

Race is a concept used to differentiate population groups largely on the basis of physical characteristics transmitted by descent. Racial categories are neither precise nor mutually exclusive, and the concept of race lacks clear scientific definition. The common use of race in the United States draws upon differences not only in physical attributes, but also in ancestry and geographic origins. Since 1977, the federal government has sought to standardize data on race and ethnicity among its agencies through the Office of Management and Budget's (OMB) *Statistical Policy Directive Number 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting* (OMB, 1978)*. Directive Number 15* standards were developed to meet federal legislative and program requirements, and they are used widely in the public and private sectors. The directive provides four basic racial categories but states that the collection of race data need not be limited to these categories. However, any additional reporting that uses more detail must be organized in such a way that the additional categories can be aggregated into the four basic groups. Although the directive does not specify a method of determining an individual's race, OMB prefers self-identification to identification by an observer whenever possible. The directive states that persons of mixed racial origins should use the single category that most closely reflects the individual's recognition in his or her community.

Data Type (and Field Length)

IS — coded value for user-defined tables (1).

Repetition

No.

Field Values

Code	Description
1	*American Indian or Alaskan Native.* A person having origins in any of the original peoples of North America, and who maintains cultural identification through tribal affiliation or community recognition.
2	*Asian or Pacific Islander.* A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands. This area includes, for example, China, India, Japan, Korea, the Philippine Islands, and Samoa.
3	*Black.* A person having origins in any of the black racial groups of Africa.
4	*White.* A person having origins in any of the original peoples of Europe, North Africa, or the Middle East.
9	Unknown.

Patient self-identification of race is preferable to observer-identification. Enter 9 if neither method yields an identification of race.

Data Standards or Guidelines

Statistical Policy Directive Number 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting (OMB, 1978), *Standards for the Classification of Federal Data on Race and Ethnicity* (OMB, 1995), and *E1633-96* (ASTM, 1996).

Other References

Core Health Data Elements (National Committee on Vital and Health Statistics, 1996).

ETHNICITY

Definition

Ethnicity of patient.

Uses

Data on patient ethnicity are used in patient care, public health surveillance, and epidemiologic, clinical, and health services research. For example, differential risks for some diseases, such as coronary artery disease, have been attributed at least partly to dietary differences across ethnic groups.

Discussion

Ethnicity is a concept used to differentiate population groups on the basis of shared cultural characteristics or geographic origins. A variety of cultural attributes contribute to ethnic differentiation, including language, patterns of social interaction, religion, and styles of dress. However, ethnic differentiation is imprecise and fluid. It is contingent on a sense of group identity that can change over time and that involves subjective and attitudinal influences. Since 1977, the federal government has sought to standardize data on race and ethnicity among its agencies through the Office of Management and Budget's (OMB) *Statistical Policy Directive Number 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting* (OMB, 1978). *Directive Number 15* standards were developed to meet federal legislative and program requirements, and they are used widely in the public and private sectors. The directive provides two basic ethnic categories — *Hispanic* and *Not of Hispanic Origin* — but states that collection of ethnicity data need not be limited to these categories. However, any additional reporting that uses more detail must be organized in such a way that the additional categories can be aggregated into the two basic groups. OMB prefers that data on race and ethnicity be collected separately. The use of the Hispanic category in a combined race/ethnicity data element makes it impossible to distribute persons of Hispanic ethnicity by race and, therefore, reduces the utility of the four basic racial categories by excluding from them persons who would otherwise be included. Although the directive does not specify a method of determining an individual's ethnicity, OMB prefers self-identification to identification by an observer whenever possible. The directive states that persons of mixed ethnicity should use the single category that most closely reflects the individual's recognition in his or her community.

Data Type (and Field Length)

IS — coded value for user-defined tables (3).

Repetition

No.

Field Values

Code	Description
1	*Hispanic.* A person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race.
2	*Not of Hispanic Origin.* Anyone with a known ethnicity not fitting the definition of Hispanic.
9	Unknown.

Patient self-identification of ethnicity is preferable to observer-identification. Enter 9 if neither method yields an identification of ethnicity.

Data Standards or Guidelines

Statistical Policy Directive Number 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting (OMB, 1978), *Standards for the Classification of Federal Data on Race and Ethnicity* (OMB, 1995), *E1633-96* (ASTM, 1996), and *Core Health Data Elements* (National Committee on Vital Health Statistics, 1996).

Other References

None.

1.08 ADDRESS

Definition

Address of patient.

Uses

The address is useful for patient follow-up and billing. It also is used to determine the agency responsible for potential public health interventions and to link patient-specific data with census data so that incidence rates can be calculated. To protect patient privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

This information probably is available from registration and billing record systems, in which addresses are routinely entered and stored.

Data Type (and Field Length)

XAD — extended address (106).

Repetition

Yes, if the patient has more than one address.

Field Values

Component 1 is the street address.
Component 2 is the second line of the address (e.g., apartment number).
Component 3 is the city.
Component 4 is the state or province.
Component 5 is the zip or postal code.
Component 6 is the country.
Component 7 is the type of address (e.g., mailing).
Component 8 is another geographic designation (e.g., catchment area ID).
Component 9 is the county/parish code.
Component 10 is the census tract.

Example:
Component 1 = 10 Ash Lane
Component 2 = Apt 3
Component 3 = Lima
Component 4 = OH
Component 5 = 48132
Component 9 = 019

Enter "" in Component 1 if the patient has no address, and enter Unknown in Component 1 if the patient's address is not known. In either instance, restrict entries to Component 1. If individual address components are not part of the address (e.g., Component 3 for a rural address without a city designation) , enter "", and if individual components are not known, enter Unknown.

The county/parish code serves a variety of purposes and when used should be entered in Component 9 as the 3-digit Federal Information Processing Standards code. The default values for entries in Components 6 and 7 are USA and M for mailing address (see the definition of XAD in the Technical Notes at the end of this document). Entries should be made in Components 8 and 10 on the basis of local needs.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

1.09 TELEPHONE NUMBER

Definition

Telephone number at which patient can be contacted.

Uses

This number is useful for patient follow-up and billing. Institutional policy should dictate how these data may be used and to whom they will be released. To protect patient privacy and confidentiality, access to the telephone number must be limited to authorized personnel.

Discussion

This may be a home or business telephone number or the telephone number of a friend, neighbor, or relative. The predominant use of this data element will be to enter the patient's residential or work telephone number, but it also can be used to enter a beeper number, answering service number, fax number, and e-mail address.

Data Type (and Field Length)

XTN — extended telecommunication number (40).

Repetition

Yes, if the patient has more than one telecommunication number.

Field Values

See the definition of XTN in the Technical Notes at the end of this document for complete details.

    Component 1 is not used except to indicate there is no phone or it is not known whether there is a phone.
    Component 2 is the code indicating the telecommunication use.
    Component 3 is the type of telecommunication equipment.
    Component 4 is the e-mail address.
    Component 5 is the country code.
    Component 6 is the area code.
    Component 7 is the phone number.
    Component 8 is the extension.
    Component 9 is a descriptive comment.

Example:
    Component 6 = (808)
    Component 7 = 555-4321
    Component 9 = After 6:00 pm

At a minimum, local phone numbers should be recorded in Component 7 in the format 999-9999. Entries are not made in Components 1–6 and 8–9 when they are not needed. When the patient has no telephone number, enter "" in Component 1. When it is unknown whether the patient has a number, enter Unknown in Component 1.

Data Standards or Guidelines

None.

Other References

None.

Definition

Identifier assigned by facility billing or accounting office for all charges and payments for this ED visit.

Uses

The account number is used to identify the patient's account for reimbursement purposes. It can be useful for differentiating individual ED visits and in health services research. To protect patient privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

None.

Data Type (and Field Length)

CX — extended composite ID with check digit (20).

Repetition

No.

Field Values

Component 1 is the identifier.
Component 2 is the check digit.
Component 3 is the code indicating the check digit scheme employed.
Components 4–6 are not used unless needed for local purposes.

Enter an account identifier in Component 1. If none or unknown is applicable, then enter "" or Unknown in Component 1, and do not make entries in the remaining components. Components 2 and 3 are for optional use when a check digit scheme is employed.

For example, when M11 refers to the algorithm used to generate the check digit:
Component 1 = 1234567
Component 2 = 6
Component 3 = M11

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996) and *E1384-96* (ASTM, 1996).

Other References

None.

1.11 SOCIAL SECURITY NUMBER

Definition

Personal identification number assigned by U.S. Social Security Administration.

Uses

The Social Security number (SSN) is frequently used as a unique patient identifier, and it may be useful for linkage with some outside data systems. To protect patient privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

Privacy concerns about the use of the SSN for purposes unrelated to administration of the Social Security system have helped prompt proposals for an alternative universal patient identifier. If implemented, this alternative would make the SSN superfluous as a patient identifier. Several practical factors impede the use of the SSN as a patient identifier or as a data linkage aid. Some patients do not have a SSN (e.g., newborns, people who have never applied for one, illegal aliens, international patients), and some patients have multiple SSNs.

Data Type (and Field Length)

ST — string data (16).

Repetition

No.

Field Values

Enter the SSN in the form NNN-NN-NNNN. Enter "" if the patient or a reliable informant states there is no SSN, and enter Unknown if it is not known whether the patient has one.

Data Standards or Guidelines

E1384-96 (ASTM, 1996) and *Health Level 7, Version 2.3* (HL7, 1996).

Other References

None.

Definition

Description of patient's current work.

Uses

Routine screening information concerning the patient's current job activity is used in clinical evaluation and management, and it is needed to assess the patient's eligibility for workers' compensation benefits. Data on occupation and industry also are useful for public health surveillance and epidemiologic research. Occupation and industry together serve as a surrogate for patient socioeconomic status.

Discussion

A succinct description of the patient's work can be used to encode occupation (or job title) and industry. Incorporating information about both occupation and industry is important, because similar occupations confer different health risks depending on the industry. For example, a painter in a shipyard is subject to different exposures than a painter in a residential setting. Occupation, along with industry, is used frequently as an indicator of socioeconomic status. However, its use for this purpose requires linkage between specific occupation groups and socioeconomic status. By comparison, the patient's educational level is a simple-to-use indicator of socioeconomic status, but occupation and industry are more routinely collected in EDs because of their clinical relevance. The National Institute for Occupational Safety and Health (NIOSH) recommends using the 1990 U.S. Bureau of the Census classification system for coding occupation (U.S. Bureau of the Census, 1992). NIOSH is developing and evaluating personal computer software to encode text entries for occupation and industry.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; the Patient Employment Group repeats if the patient has more than one job.

---

*The Patient Employment Group includes data elements 1.12 and 1.13. A single iteration of this group is used to report each job held by the patient.

Field Values

Component 1 is the occupation code.
Component 2 is the occupation descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

For example, using the U.S. Bureau of the Census Occupation/Industry code (COI):
Component 1 = 434
Component 2 = Bartender
Component 3 = COI

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Bartender

Data Standards or Guidelines

1990 Census of Population and Housing: Alphabetical Index of Industries and Occupations (U.S. Bureau of the Census, 1992) and *E1633-96* (ASTM, 1996).

Other References

None.

Definition

Description of industry or business in which patient currently works.

Uses

Routine screening information concerning the patient's current job activity is used in clinical evaluation and management, and it is needed to assess the patient's eligibility for workers' compensation benefits. Data on occupation and industry also are useful for public health surveillance and epidemiologic research. Occupation and industry together serve as a surrogate for patient socioeconomic status.

Discussion

A succinct description of the patient's work, identifying both occupation (or job title) and industry can be used to encode both occupation and industry. Incorporating information about both occupation and industry is important, because similar occupations confer different health risks depending on the industry. For example, a painter in a shipyard is subject to different exposures than a painter in a residential setting. The Office of Management and Budget (OMB) and the U.S. Bureau of the Census have developed systems for encoding industry (OMB, 1987; U.S. Bureau of the Census, 1992). The National Institute for Occupational Safety and Health is developing and evaluating personal computer software to encode text entries for occupation and industry.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; the Patient Employment Group repeats if the patient has more than one job.

Field Values

Component 1 is the industry code.
Component 2 is the industry descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
For example, using the U.S. Bureau of the Census Occupation/Industry code (COI):
Component 1 = 762
Component 2 = Hotels and motels
Component 3 = COI
Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Hotel industry

Data Standards or Guidelines

Standard Industrial Classification Manual, 1987 (OMB, 1987), *1990 Census of Population and Housing: Alphabetical Index of Industries and Occupations* (U.S. Bureau of the Census, 1992), and *E1633-96* (ASTM, 1996).

Other References

None.

Definition

Name of person whom patient designates to be primary contact if notification is necessary.

Uses

Contact with and notification of a family member or another significant individual is frequent in the practice of emergency medicine. To protect patient and emergency contact privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

The individual named is not necessarily the guarantor or the person responsible for payment of the bill.

Data Type (and Field Length)

XPN — extended person name (48).

Repetition

Yes; if the patient has more than one emergency contact or an emergency contact has more than one telephone or other telecommunication number, the Emergency Contact Group repeats.

Field Values

Component 1 is the family name.
Component 2 is the given name.
Component 3 is the middle name or initial.
Component 4 is the suffix (e.g., Jr).
Component 5 is the prefix (e.g., Dr).
Component 6 is the degree (e.g., DO).
Component 7 is the code for the name type (defaults to L, indicating legal name).

Example:
Component 1 = Smith
Component 2 = Mary
Component 3 = B

Enter "" in Component 1 when the patient has no emergency contact. Enter Unknown in Component 1 if the patient has an emergency contact but the contact's name is not known. In other components, "" (none) or Unknown may be entered when appropriate. Entries are not made in Components 4–7 when they are not needed.

---

*The Emergency Contact Group includes data elements 1.14–1.17. A single iteration of this group is used to report each emergency contact or different emergency contact telephone number.

Data Standards or Guidelines

E1744-95 (ASTM, 1995).

Other References

None.

Definition

Address of person whom patient designates to be primary contact if notification is necessary.

Uses

Contact with and notification of a family member or another significant individual is frequent in the practice of emergency medicine. To protect patient and emergency contact privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

None.

Data Type (and Field Length)

XAD — extended address (106).

Repetition

Yes; if the patient has more than one emergency contact or an emergency contact has more than one telephone or other telecommunication number, the Emergency Contact Group repeats.

Field Values

Component 1 is the street address.
Component 2 is the second line of the address (e.g., apartment number).
Component 3 is the city.
Component 4 is the state or province.
Component 5 is the zip or postal code.
Component 6 is the country.
Component 7 is the type of address (e.g., permanent, mailing).
Component 8 is another geographic designation (e.g., catchment area ID).
Component 9 is the county/parish code.
Component 10 is the census tract.

Example:
Component 1 = 10 Ash Lane
Component 2 = Apt 3
Component 3 = Lima
Component 4 = OH
Component 5 = 48132

Enter "" in Component 1 if the emergency contact has no address, and enter Unknown in Component 1 if the emergency contact's address is not known. In either instance, restrict entries to Component 1. If individual address components are not part of the address (e.g., Component 3 for a rural address without a city designation), enter "", and if individual components are not known, enter Unknown.

The county/parish code serves a variety of purposes and when used should be entered in Component 9 as the 3-digit Federal Information Processing Standards code. The default values for entries in Components 6 and 7 are USA and M for mailing address (see the definition of XAD in the Technical Notes at the end of this document). Entries should be made in Components 8 and 10 on the basis of local needs.

Data Standards or Guidelines

None.

Other References

None.

EMERGENCY CONTACT TELEPHONE NUMBER

1.16

Definition

Telephone number of person whom patient designates to be primary contact if notification is necessary.

Uses

Contact with and notification of a family member or another significant individual is frequent in the practice of emergency medicine. To protect patient and emergency contact privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

This data element can be used to enter any type of telecommunication number.

Data Type (and Field Length)

XTN — extended telecommunication number (40).

Repetition

Yes; if the patient has more than one emergency contact or an emergency contact has more than one telephone or other telecommunication number, the Emergency Contact Group repeats.

Field Values

See the definition of XTN in the Technical Notes at the end of this document for complete details.

> Component 1 is not used except to indicate there is no phone or it is not known whether there is a phone.
> Component 2 is the code indicating the telecommunication use.
> Component 3 is the type of telecommunication equipment.
> Component 4 is the e-mail address.
> Component 5 is the country code.
> Component 6 is the area code.
> Component 7 is the phone number.
> Component 8 is the extension.
> Component 9 is a descriptive comment.

Example:

> Component 6 = (808)
> Component 7 = 555-4321
> Component 9 = After 6:00 pm

At a minimum, local phone numbers should be recorded in Component 7 in the format 999-9999. Entries are not made in Components 1–6 and 8–9 when they are not needed. When the patient has no telephone number, enter "" in Component 1. When it is unknown whether the patient has a number, enter Unknown in Component 1.

Data Standards or Guidelines

None.

Other References

None.

Definition

Emergency contact's relationship to patient.

Uses

Contact with and notification of a family member or another significant individual is frequent in the practice of emergency medicine. To protect patient and emergency contact privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if the patient has more than one emergency contact or an emergency contact has more than one telephone or other telecommunication number, the Emergency Contact Group repeats.

Field Values

Component 1 is the relationship code.
Component 2 is the relationship descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

If the patient has no emergency contact (i.e., Component 1 of Emergency Contact Name = ""), this data element need not be entered. A standard coding system for relationship needs to be developed. Until such a coding system is agreed on, a locally defined table can be used (e.g., 1 = spouse, 2 = parent, etc.). For example, data could be entered in the following manner:

Component 1 = 1
Component 2 = Spouse
Component 3 = L

Text data also can be entered without an accompanying code, as follows:

Component 1 = ""
Component 2 = Sister

If the relationship is unknown, enter Unknown in Component 1. If data characterizing the nature of the relationship are missing, enter "" in Component 1. Do not make entries in Components 2–6 if Component 1 contains "" or Unknown.

Data Standards or Guidelines

E1744-95 (ASTM, 1995).

Other References

None.

FACILITY AND PRACTITIONER IDENTIFICATION DATA

S
E
C
T
I
O
N

2

Definition

Identifier for facility where patient seeks or receives outpatient emergency care.

Uses

The identification of the facility is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

PL — person location (80).

Repetition

No.

Field Values

Component 4, an HD — hierarchic designator data type, is a facility identifier that has three subcomponents —
> Subcomponent 1 is the name of the facility.
> Subcomponent 2 is the facility identifier (including check digit).
> Subcomponent 3 is the facility identifier type.

Component 1-3 and 5-15 are not used unless needed for local purposes.

Examples:

Component 4 —
> Subcomponent 1 = Gotham Hospital
> Subcomponent 2 = 39748213
> Subcomponent 3 = NPI

If no facility identifier is available, enter the name only:

Component 4 —
> Subcomponent 1 = Gotham Hospital

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Intermediary Operations* (HCFA, 1996).

Other References

E1384-96 (ASTM, 1996) and *Health Level 7, Version 2.3* (HL7, 1996).

PRIMARY PRACTITIONER NAME

Definition

Name of physician or other practitioner who provides patient's overall longitudinal care.

Uses

Contact with and notification of the patient's primary practitioner is common during ED evaluation, treatment, and discharge planning. Communication with the primary practitioner can provide information about the patient's past medical history and can improve follow-up care. To protect practitioner privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

None.

Data Type (and Field Length)

XPN — extended person name (48).

Repetition

Yes; if more than one primary practitioner is responsible, the Primary Practitioner Group repeats.

Field Values

Component 1 is the family name.
Component 2 is the given name.
Component 3 is the middle name or initial.
Component 4 is the suffix (e.g., Jr).
Component 5 is the prefix (e.g., Dr).
Component 6 is the degree (e.g., MD).
Component 7 is the code for the name type (defaults to L, indicating legal name).

Example:
Component 1 = Smith
Component 2 = John
Component 3 = A
Component 5 = Dr

Enter Unknown in Component 1 if the name is unknown, and enter "" if the patient has no primary practitioner. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 4-7 need not be made when they are not necessary.

Data Standards or Guidelines

None.

Other References

None.

---

*The Primary Practitioner Group includes data elements 2.02–2.07. A single iteration of this group is used to report each responsible primary practitioner.

Definition

Identifier for practitioner who provides patient's overall longitudinal care.

Uses

Contact with and notification of the patient's primary practitioner is common during ED evaluation, treatment, and discharge planning. Communication with the primary practitioner can provide information about the patient's past medical history and can improve follow-up care. To protect practitioner privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

CX — extended composite ID with check digit (32).

Repetition

Yes; if more than one primary practitioner is responsible, this data element repeats with the Primary Practitioner Group, and if a single primary practitioner has more than one identifier, this data element repeats within the Primary Practitioner Group.

Field Values

Component 1 is the practitioner identifier.
Component 2 is the check digit.
Component 3 is the code indicating the check digit scheme.
Component 5 is the code indicating the identifier type.
Components 4 and 6 are not used unless needed for local purposes.

Example:

Component 1 = 4672093
Component 2 = 5
Component 3 = IBM Check
Component 5 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 4 and 6 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Primary practitioner's profession or occupation and specialty or subspecialty.

Uses

Knowledge of the type of primary practitioner responsible for the patient's overall longitudinal care provides immediate patient care benefits. Contact with and notification of the patient's primary practitioner is common during ED evaluation, treatment, and discharge planning. Communication with the primary practitioner can facilitate access to the patient's past medical history and can improve follow-up care.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one primary practitioner is responsible, the Primary Practitioner Group repeats.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Example:
Component 1 = 203BP0200Y
Component 2 = Pediatrician
Component 3 = X12
When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Pediatrician
If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

Definition

Address of physician or other practitioner who provides patient's overall longitudinal care.

Uses

Contact with and notification of the patient's primary practitioner is common during ED evaluation, treatment, and discharge planning. Communication with the primary practitioner can facilitate access to the patient's past medical history and can improve follow-up care. To protect practitioner privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

None.

Data Type (and Field Length)

XAD — extended address (106).

Repetition

Yes; if more than one primary practitioner is responsible, the Primary Practitioner Group repeats.

Field Values

Component 1 is the street address.
Component 2 is the second line of the address (e.g., suite number).
Component 3 is the city.
Component 4 is the state or province.
Component 5 is the zip or postal code.
Component 6 is the country.
Component 7 is the type of address (e.g., mailing).
Component 8 is another geographic designation (e.g., catchment area ID).
Component 9 is the county/parish code.
Component 10 is the census tract.

Example:

Component 1 = 999 Main Street
Component 2 = Rincon Building, Suite 101
Component 3 = Atlanta
Component 4 = GA
Component 5 = 30333

Enter "" in Component 1 if the practitioner has no address, and enter Unknown in Component 1 if the practitioner's address is not known. In either instance, restrict entries to Component 1. If individual address components are not part of the address (e.g., Component 3 for a rural address without a city designation), enter "", and if individual components are not known, enter Unknown.

The county/parish code serves a variety of purposes and when used should be entered in Component 9 as the 3-digit Federal Information Processing Standards code. The default values for entries in Components 6 and 7 are USA and M for mailing address (see the definition of XAD in the Technical Notes at the end of this document). Entries should be made in Components 8 and 10 on the basis of local needs.

Data Standards or Guidelines

None.

Other References

None.

Definition

Telephone number of physician or other practitioner who provides patient's overall longitudinal care.

Uses

Contact with and notification of the patient's primary practitioner is common during ED evaluation, treatment, and discharge planning. Communication with the primary practitioner can facilitate access to the patient's past medical history and can improve follow-up care. To protect practitioner privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

This data element can be used to enter any type of telecommunication number.

Data Type (and Field Length)

XTN — extended telecommunication number (40).

Repetition

Yes; if more than one primary practitioner is responsible, the Primary Practitioner Group repeats.

Field Values

See the definition of XTN in the Technical Notes at the end of this document for complete details.

Component 1 is not used except to indicate there is no phone or it is not known whether there is a phone.

Component 2 is the code indicating the telecommunication use.

Component 3 is the type of telecommunication equipment.

Component 4 is the e-mail address.

Component 5 is the country code.

Component 6 is the area code.

Component 7 is the phone number.

Component 8 is the extension.

Component 9 is a descriptive comment.

Example:

Component 4 = drjones@office.com

Component 7 = 555-4321

Component 9 = 9:00 am to 4:00 pm

At a minimum, local phone numbers should be recorded in Component 7 in the format 999-9999. Entries are not made in Components 1–6 and 8–9 when they are not needed. When the patient has no telephone number, enter "" in Component 1. When it is unknown whether the patient has a number, enter Unknown in Component 1.

Data Standards or Guidelines

None.

Other References

None.

Definition

Health care organization that provides patient's overall longitudinal care.

Uses

Contact with and notification of the patient's primary practitioner organization is common during the evaluation, treatment, and disposition of the ED patient. Communication with the primary practitioner organization can facilitate access to the patient's past medical history and can improve follow-up care. In the absence of information about how to contact the patient's individual primary practitioner, this data element is needed for communication regarding the patient's past medical history or to arrange follow-up.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XON — extended composite name and ID number for organizations (60).

Repetition

Yes; if more than one primary practitioner is responsible, the Primary Practitioner Group repeats.

Field Values

Component 1 is the organization name.
Component 3 is the organization identifier.
Component 4 is the check digit.
Component 5 is the code indicating the check digit scheme.
Component 7 is the code indicating the identifier type.
Components 2, 6, and 8 are not used unless needed for local purposes.

Example:
Component 1 = Redfern Medical Group
Component 3 = 4387241
Component 4 = 4
Component 5 = IBM Check
Component 7 = NPI

Enter "" in Component 1 if there is no organization and enter Unknown if the organization is not known. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2, 4–6, and 8 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Intermediary Operations* (HCFA, 1996).

Other References

E1384-96 (ASTM, 1996) and *Health Level 7, Version 2.3* (HL7, 1996).

Definition

Identifier for ED practitioner responsible for patient's care during this ED visit.

Uses

The identification of an ED practitioner is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

CX — extended composite ID with check digit (60).

Repetition

Yes; if more than one practitioner is responsible for a patient's care during the patient's ED visit, this data element repeats with the ED Practitioner Group, and if a single ED practitioner has more than one identifier, this data element repeats within the ED Practitioner Group.

Field Values

Component 1 is the practitioner identifier.
Component 2 is the check digit.
Component 3 is the code indicating the check digit scheme.
Component 5 is the code indicating the identifier type.
Components 4 and 6 are not used unless needed for local purposes.

Example:
Component 1 = 4672093
Component 2 = 5
Component 3 = IBM Check
Component 5 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 4 and 6 need not be made when they are not necessary.

---

*The ED Practitioner Group includes data elements 2.08–2.10. A single iteration of this group is used to report each practitioner who has responsibility for the patient's care at any time during the ED visit.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

ED practitioner's profession or occupation and specialty or subspecialty.

Uses

Identification of the ED practitioner type is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one practitioner is responsible for a patient's care during the patient's ED visit, this data element repeats with the ED Practitioner Group.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BE0004Y
Component 2 = Emergency physician
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Emergency physician

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

PART OF THE ED PRACTITIONER GROUP (2.08–2.10)

Definition

ED practitioner's role in patient's care during this ED visit.

Uses

Identification of the ED practitioner's current role is needed for direct patient care. This information also is used for continuity of care, administration, quality-of-care monitoring, health care reimbursement, and health services research.

Discussion

This data element is intended for use in encoding the role of the practitioner or practitioners providing care for the ED patient. As such, this element can be used to encode data about ED physicians, nurses, and other health care practitioners who by law or local practice identify themselves in ED records. Its intended use extends to non-ED-based practitioners who assume responsibility for the patient's care in the ED (e.g., a primary care physician who is called to the ED once the patient arrives or a surgeon whose patient care responsibilities begin in the ED and continue with inpatient hospitalization). This data element is not intended for use in entering data about a practitioner whose role is limited to providing opinion or advice about a specific evaluation or management problem (see data elements 2.11–2.14). In the absence of a universally accepted system for coding practitioners' roles, a locally defined table should be used. A recommended, basic framework for such a table is provided below. This table can be hierarchically expanded to accommodate whatever level of specificity is needed.

Data Type (and Field Length)

IS — coded value for user-defined tables (3).

Repetition

Yes; if more than one practitioner is responsible for a patient's care during the patient's ED visit, the ED Practitioner Group repeats.

Field Values

The following table is recommended for use in coding the practitioner's current role:

Code	Description
	Physicians
100	ED attending or staff physician
110	ED resident (includes interns, house staff at all postgraduate levels, and fellows)
120	Non-ED-based attending or staff physician (includes primary care physicians and other attending or staff physicians called to the ED once the patient arrives)
130	Non-ED-based resident (includes interns, house staff at all postgraduate levels, and fellows working on the service of a non-ED-based attending or staff physician)

Code	Description
	Nurses
200	Registered nurse
210	Nurse practitioner
220	Attending nurse practitioner
230	Other advanced practice nurse (clinical nurse specialist, nurse anesthetist, or nurse midwife)
240	Licensed practical nurse or licensed vocational nurse
300	Physician assistant
400	Respiratory therapist
	Nurse's aides, technicians, and technologists
500	Nurse's aide
510	ED technician
520	Phlebotomy technician
530	ECG technician
540	Radiologic technologist or technician
550	Other technician or technologist
600	Social worker
	Student practitioners
700	Medical student
710	Registered nurse student
720	Nurse practitioner student
730	Other advanced practice nurse student (clinical nurse specialist, nurse anesthetist, or nurse midwife)
740	Licensed practical nurse or licensed vocational nurse student
750	Physician assistant student
760	Nurse's aide, technician, or technologist student
770	Other student practitioner
888	Other role
999	Unknown role

If further specification of practitioner roles is required, the table can be expanded hierarchically. For example, non-ED-based resident (130), registered nurse (200), and other advanced practice nurse (230), could be expanded as follows:

Code	Description
131	Non-ED-based intern
132	Non-ED-based resident (excludes interns and fellows)
133	Non-ED-based fellow
201	Registered nurse (bachelor of science nurse)
202	Registered nurse (associate degree nurse/diploma)

Code	Description
231	Clinical nurse specialist
232	Nurse anesthetist
233	Nurse midwife

Data Standards or Guidelines

None.

Other References

None.

Definition

Identifier for consulting practitioner who participates in patient's care during ED visit.

Uses

The identification of an ED consultant is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

An ED consultant provides opinions or advice regarding the evaluation or management of a specific problem at the request of an ED practitioner. An ED consultant also may order or perform diagnostic or therapeutic services. In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

CX — extended composite ID with check digit (60).

Repetition

Yes; if more than one practitioner is consulted during a patient's ED visit, this data element repeats with the ED Consultant Group, and if a single ED consultant has more than one identifier, this data element repeats within the ED Consultant Group.

Field Values

Component 1 is the practitioner identifier.
Component 2 is the check digit.
Component 3 is the code indicating the check digit scheme.
Component 5 is the code indicating the identifier type.
Components 4 and 6 are not used unless needed for local purposes.

Example:
Component 1 = 4672093
Component 2 = 5
Component 3 = IBM Check
Component 5 = NPI

---

*The ED Consultant Group includes data elements 2.11–2.14. A single iteration of this group is used to report each consultant.

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 4 and 6 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

ED consultant's profession or occupation and specialty or subspecialty.

Uses

Identification of the ED consultant type is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one practitioner is consulted during a patient's ED visit, this data element repeats with the ED Consultant Group.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BS0127N
Component 2 = Trauma surgeon
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Trauma surgeon

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

DATE/TIME ED CONSULT REQUEST INITIATED

Definition

Date and time when ED physician or other appropriate requester first attempts to contact ED consultant or consulting service.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

Enter the date and time of the first attempt to contact an ED consultant, regardless of the success or failure of that attempt.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; if more than one practitioner is consulted during a patient's ED visit, this data element repeats with the ED Consultant Group.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Date and time when ED consultant's services begin.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

Enter the date and time when the ED consultant initiated contact with the patient or first provided other consultation services, such as a telephone opinion or advice regarding the evaluation and management of a specific problem.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; if more than one practitioner is consulted during a patient's ED visit, this data element repeats with the ED Consultant Group.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

2

ED Payment Data

SECTION 3

Definition

Entity or person expected to be responsible for patient's bill for this ED visit.

Uses

Data on insurance coverage are used for direct patient care, reimbursement, health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

The patient's bill includes both facility and professional charges. Facility charges include those for facility overhead, nursing care, medications, supplies, and the facility portion of diagnostic tests. Professional charges include fees charged by the attending emergency physician, advanced practice nurse (e.g., clinical nurse specialist, nurse practitioner), physician assistant, radiologist, pathologist, and ED consultant.

Data Type (and Field Length)

IS — coded value for user-defined tables (3).

Repetition

Yes; the Insurance Group repeats when the patient has more than one type of insurance coverage.

Field Values

Code	Description
10	Insurance company
20	Medicare
30	Medicaid
40	Workers' compensation
50	Other government payments
60	Self-pay
70	No charge
88	Other
99	Unknown

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

Core Health Data Elements (National Committee on Vital and Health Statistics, 1996).

---

*The Insurance Group includes data elements 3.01–3.05. A single iteration of this group is used to report each type of insurance coverage.

INSURANCE COMPANY

Definition

Patient's insurance company or carrier.

Uses

Data on insurance coverage are used for direct patient care, reimbursement, health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

XON — extended composite name and ID number for organizations (130).

Repetition

Yes; the Insurance Group repeats when the patient has more than one type of insurance coverage.

Field Values

Component 1 is the organization name.
Component 3 is the insurance company identifier.
Components 2 and 4-8 are not used unless needed for local purposes.

Example:

Component 1 = Acme Insurance Company
Component 3 = 123456

If none or unknown is applicable, then "" or Unknown would be entered in Component 1.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

Definition

Address of patient's insurance company.

Uses

Data on insurance coverage are used for direct patient care, reimbursement, health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

XAD — extended address (106).

Repetition

Yes; the Insurance Group repeats when the patient has more than one type of insurance coverage.

Field Values

Component 1 is the street address.
Component 2 is the second line of the address (e.g., suite number).
Component 3 is the city.
Component 4 is the state or province.
Component 5 is the zip or postal code.
Component 6 is the country.
Component 7 is the type of address (e.g., mailing).
Component 8 is another geographic designation (e.g., catchment area ID).
Component 9 is the county/parish code.
Component 10 is the census tract.

Example:
Component 1 = 999 Main Street
Component 2 = Rincon Building, Suite 101
Component 3 = Atlanta
Component 4 = GA
Component 5 = 30333

Enter "" in Component 1 if the insurance company has no address, and enter Unknown in Component 1 if the company's address is not known. In either instance, restrict entries to Component 1. If individual address components are not part of the address (e.g., Component 3 for a rural address without a city designation), enter "", and if individual components are not known, enter Unknown.

3

The county/parish code serves a variety of purposes and when used should be entered in Component 9 as the 3-digit Federal Information Processing Standards code. The default values for entries in Components 6 and 7 are USA and M for mailing address (see the definition of XAD in the Technical Notes at the end of this document). Entries should be made in Components 8 and 10 on the basis of local needs.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

Definition

Insurance plan in which patient is enrolled.

Uses

Data on insurance coverage are used for direct patient care, reimbursement, health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; the Insurance Group repeats when the patient has more than one type of insurance coverage.

Field Values

Component 1 is the code for the insurance plan type.
Component 2 is the insurance plan type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Entries should be from a locally defined table of plan types.

Example:
Component 1 = POS
Component 2 = Point of service plan
Component 3 = L

Enter "" in Component 1 if there is no plan type, and enter Unknown in Component 1 if the plan type is not known.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

INSURANCE POLICY ID

Definition

Identifier for patient's insurance policy.

Uses

Data on insurance coverage are used for direct patient care, reimbursement, health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

ST — string data (15).

Repetition

Yes; the Insurance Group repeats when the patient has more than one type of insurance coverage.

Field Values

Example:
    111-3214311

Data Standards or Guidelines

None.

Other References

None.

Definition

Indicator of whether payment authorization for ED services is required by third-party payer.

Uses

Because authorization often is required to ensure payment for ED services, information on such a requirement frequently is sought for insured patients. Data on authorization requirement also are used for health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the code for the authorization requirement.
Component 2 is the authorization requirement descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the authorization requirement:

Code	Description
1	Authorization not required
2	Authorization required
3	Not applicable (includes no third-party payer)
9	Unknown if required

Example:
Component 1 = 2
Component 2 = Authorization required
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Authorization not required

If no requirement is reported, enter data in the following manner:
Component 1 = ""

Data Standards or Guidelines

None.

Other References

None.

STATUS OF ED PAYMENT AUTHORIZATION ATTEMPT

PART OF ED PAYMENT AUTHORIZATION GROUP (3.07–3.14)*

Definition

Indicator of whether contact with third-party payer is attempted and whether contact is established.

Uses

Data on authorization are used for direct patient care and for health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

Component 1 is the code for the status of payment authorization attempt.
Component 2 is the payment authorization attempt descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the status of the payment authorization attempt:

Code	Description
10	Contact not attempted
20	Contact attempted but not established
30	Contact attempted and established
99	Unknown whether contact attempted or established

A standard table that hierarchically expands the above codes is needed to further specify authorization attempts. Until such a table is agreed on universally, the facility can develop its own table of expanded codes. For example, category 10 could be expanded to include:

Code	Description
11	Not attempted because of urgency of clinical condition
12	Not attempted because payer not adequately identified
13	Not attempted because payer already contacted and payment authorized

---

*The ED Payment Authorization Group includes data elements 3.07–3.14. A single iteration of this group is used to report each payment authorization attempt.

Example:
   Component 1 = 12
   Component 2 = Not attempted because payer not adequately identified
   Component 3 = L
Text data also can be entered without an accompanying code, as follows:
   Component 1 = ""
   Component 2 = Not attempted because of urgency of clinical condition

Data Standards or Guidelines
None.

Other References
None.

3

Definition

Date and time when payment authorization is sought from third-party payer.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Decision made regarding payment authorization for ED services.

Uses

Data on authorization are used for direct patient care and for health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

Component 1 is the code for the authorization decision.
Component 2 is the authorization decision descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding authorization decision:

Code	Description
10	Approval
20	Denial
88	Other
99	Unknown

A standard table that hierarchically expands the above codes is needed for further specification of authorization decisions. Until such a table is agreed on universally, the facility may develop its own table of expanded codes. For example, category 10 could be expanded to include:

Code	Description
11	Approval contingent on further evaluation
12	Approval for selected services only

Example:
Component 1 = 11
Component 2 = Approval contingent on further evaluation
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Approval

Data Standards or Guidelines
None.

Other References
None.

3.10

Definition

Date and time when third-party payer provides decision regarding payment authorization for ED services.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

3

ENTITY CONTACTED TO AUTHORIZE ED PAYMENT

Definition

Name of insurance company or other entity contacted to authorize payment for ED services.

Uses

Data on authorization are used for direct patient care and for health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

ST — string data (45).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

Example:
    Acme Health Maintenance Organization

If there is no organization or entity name then enter "" (none). If the name is not known, enter Unknown.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

ED Payment Authorization Code

PART OF ED PAYMENT AUTHORIZATION GROUP (3.07–3.14)

Definition

Identifier assigned by third-party payer to track payment authorization for ED services.

Uses

Data on authorization are used for direct patient care and for health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

None.

Data Type (and Field Length)

EI — entity identifier (30).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

The structure of this code varies among third-party payers.
Component 1 is the authorization code.
Components 2–4 are not used unless needed for local purposes.
Enter "" in Component 1 if there is no authorization code. Enter Unknown in Component 1 if the authorization code is not known.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

3

PERSON CONTACTED TO AUTHORIZE ED PAYMENT

Definition

Person employed by or associated with third-party payer who is contacted for payment authorization.

Uses

Data on authorization are used for direct patient care and for health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

To protect the contact person's privacy and confidentiality, access to this data element must be limited to authorized personnel.

Data Type (and Field Length)

XPN — extended person name (106).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

Component 1 is the family name.
Component 2 is the given name.
Component 3 is the middle name or initial.
Component 4 is the suffix (e.g., Jr).
Component 5 is the prefix (e.g., Dr).
Component 6 is the degree (e.g., MD).
Component 7 is the code for the name type.

Example:
Component 1 = Smith
Component 2 = John
Component 3 = A
Component 5 = Dr

Enter Unknown in Component 1 if entire name is unknown, and "" if there is no contact person. In all other components, enter "" (none) or Unknown when appropriate.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

TELEPHONE NUMBER OF ENTITY OR PERSON CONTACTED TO AUTHORIZE ED PAYMENT

PART OF ED PAYMENT AUTHORIZATION GROUP (3.07–3.14)

Definition

Telephone number of entity or person contacted to authorize payment for ED services.

Uses

Data on authorization are used for direct patient care and for health services research and administration, quality-of-care monitoring and evaluation, and financial analysis.

Discussion

This data element can be used to enter any type of telecommunication number.

Data Type (and Field Length)

XTN — extended telecommunication number (100).

Repetition

Yes; the ED Payment Authorization Group repeats when more than one authorization attempt is made.

Field Values

See XTN in the Technical Notes at the end of this document for complete details.
Component 1 is not used except to indicate there is no phone or it is not known whether there is a phone.
Component 2 is the code indicating the telecommunication use.
Component 3 is the type of telecommunication equipment.
Component 4 is the e-mail address.
Component 5 is the country code.
Component 6 is the area code.
Component 7 is the phone number.
Component 8 is the extension.
Component 9 is a descriptive comment.
Example:
Component 6 = (808)
Component 7 = 555-4321
Component 9 = 9:00 am to 5:00 pm

At a minimum, local phone numbers should be recorded in Component 7 in the format 999-9999. Entries are not made in Components 1-6 and 8-9 when they are not needed. When the patient has no telephone number, enter "" in Component 1. When it is unknown whether the patient has a number, enter Unknown in Component 1.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

3.15 TOTAL ED FACILITY CHARGES

Definition

Total facility charges billed for this ED visit.

Uses

Data on total ED facility charges are used for reimbursement purposes and for health care financing research. Bills submitted to ED patients who are hospitalized do not always specify the ED portion of the charges. Maintaining a specific record of charges incurred during the ED visit allows facilities to track these charges separately.

Discussion

This data element includes charges for facility overhead, nursing care, medications, supplies, and the facility portion of diagnostic tests. It excludes all professional fees, such as those charged by the attending emergency physician, advanced practice nurse (e.g., clinical nurse specialist, nurse practitioner), physician assistant, radiologist, pathologist, and ED consultant. ED patient records usually do not include data on charges. However, in many ED settings, information on facility charges can be obtained from billing records.

Data Type (and Field Length)

MO — money (12).

Repetition

No.

Field Values

Enter the total facility charges to the nearest dollar amount.
Component 1 is the monetary amount.
Component 2 is the currency type.

Example:
Component 1 = 150
Component 2 = USD

Data Standards or Guidelines

None.

Other References

1984 Revision of the Uniform Hospital Discharge Data Set (Health Information Policy Council, 1985)*, Report on the Uniform Ambulatory Care Data Set* (National Committee on Vital and Health Statistics, 1990)*, Uniform Bill-92* (National Uniform Billing Committee, 1996), *Carriers Manual, L 2010, Health Insurance Claim Form HCFA 1500* (Health Care Financing Administration, 1996), and *Core Health Data Elements* (National Committee on Vital and Health Statistics**,** 1996).

Definition

Total professional fees billed for this ED visit.

Uses

Data on total professional fees are used for reimbursement purposes and for health care financing research. Bills submitted to ED patients who are hospitalized do not always specify the ED portion of the charges. Maintaining a specific record of charges incurred during the ED visit allows facilities to track these charges separately.

Discussion

This data element includes fees charged by the attending emergency physician, advanced practice nurse (e.g., clinical nurse specialist, nurse practitioner), physician assistant, radiologist, pathologist, and ED consultant. It excludes charges for facility overhead, nursing care, medications, supplies, and the facility portion of diagnostic tests. ED patient records usually do not include data on charges. However, in many ED settings, information on charges can be obtained from billing records.

Data Type (and Field Length)

MO — money (12).

Repetition

No.

Field Values

Enter the total professional fees to the nearest dollar amount.
  Component 1 is the monetary amount.
  Component 2 is the currency type.

Example:
  Component 1 = 200
  Component 2 = USD

Data Standards or Guidelines

None.

Other References

1984 Revision of the Uniform Hospital Discharge Data Set (Health Information Policy Council, 1985)*, Report on the Uniform Ambulatory Care Data Set* (National Committee on Vital and Health Statistics, 1990)*, Uniform Bill-92* (National Uniform Billing Committee, 1996), *Carriers Manual, L 2010, Health Insurance Claim Form HCFA 1500* (Health Care Financing Administration, 1996), and *Core Health Data Elements* (National Committee on Vital and Health Statistics**,** 1996).

ED Arrival and First Assessment Data

Definition

First date and time documented in patient's record for this ED visit.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research. The first documented time in the ED frequently is compared with the time of ED discharge in studies of patient flow.

Discussion

The first documented date and time in the ED are the actual arrival date and time or, more frequently, the closest proxy to that time. ED patients often arrive well before the time when they are registered. The triage time, patient log-in time, or first vital sign time frequently is closer to the actual arrival time than is the registration time. Even in a single ED setting, the date/time first documented may be recorded differently from patient to patient, depending on the mode of patient arrival, patient volume, staffing, and other factors.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

MODE OF TRANSPORT TO ED

Definition

Patient's mode of transport to ED.

Uses

Documentation of the mode of transport is used for continuity of care, linkage to prehospital EMS data, health care administration and finance, quality-of-care monitoring, and research.

Discussion

Ambulance transports include transports via ambulances operated by law enforcement agencies. The term walk-in, as it is used here, encompasses some nonambulatory patients arriving at the ED. It includes patients transported by vehicles other than ambulances who arrive via wheelchair or gurney, patients who are carried into the ED, and patients who are transported by law enforcement vehicles other than ambulances.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes, if more than one mode is used to transport the patient.

Field Values

Component 1 is the mode-of-transport code.
Component 2 is the mode-of-transport descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the mode of transport:

Code	Description
10	Ground ambulance
20	Helicopter ambulance
30	Fixed-wing air ambulance
40	Ambulance, not otherwise specified
50	Walk-in following transport via private transportation
60	Walk-in following transport via public transportation
70	Walk-in following nonambulance, law enforcement transport
80	Walk-in, not otherwise specified
88	Other mode of transport
99	Unknown mode of transport

Example:
Component 1 = 10
Component 2 = Ground ambulance
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = ambulance

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4

EMS UNIT THAT TRANSPORTED ED PATIENT

Definition

Identifier for EMS unit that transported patient to ED.

Uses

This data element can be used to link with other EMS data and construct reports that are specific to an EMS unit.

Discussion

The EMS unit identifier refers to a specific vehicle, not the individuals who are operating the unit, and usually is designated by the EMS agency that transported the patient or by a state EMS office.

Data Type (and Field Length)

CX — extended composite ID with check digit (60).

Repetition

No.

Field Values

Component 1 is the identifier.
Component 4 is the authority that assigns the identifier.
Components 2-3 and 5-6 are not used unless needed for local purposes.

For example, a 2-digit ambulance identifier assigned by the Noteworthy Ambulance Service, would be entered as follows:

Component 1 = 23
Component 4 = Noteworthy Ambulance Service

If none or unknown is applicable, then enter "" or Unknown in Component 1, and do not make entries in Component 4.

Data Standards or Guidelines

None.

Other References

Uniform Pre-Hospital Emergency Medical Services Data Conference Final Report (National Highway Traffic Safety Administration, 1994).

Definition

Identifier for EMS agency that transported patient to ED.

Uses

This data element can be used to link with other EMS data and construct reports that are specific to an EMS agency.

Discussion

The agency identifier is usually designated by a state EMS authority.

Data Type (and Field Length)

CX — extended composite ID with check digit (60).

Repetition

No.

Field Values

Component 1 is the identifier.
Component 4 is the authority that assigns the identifier.
Components 2–3 and 5–6 are not used unless needed for local purposes.

For example, a 5-character agency identifier assigned to the Noteworthy Ambulance Service by a Montana EMS authority, would be entered as follows:
Component 1 = A0025
Component 4 = MT

If none or unknown is applicable, then enter "" or Unknown in Component 1, and do not make entries in Component 4.

Data Standards or Guidelines

None.

Other References

Uniform Pre-Hospital Emergency Medical Services Data Conference Final Report (National Highway Traffic Safety Administration, 1994).

4

4.05　SOURCE OF REFERRAL TO ED

Definition

Individual or group who decided patient should seek care at this ED.

Uses

Identification of the referral source is used to determine appropriate discharge referrals and services. This element provides surveillance data for program and service planning and is used to examine referral patterns and use of emergency services.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the code for the referral source.
Component 2 is the referral source descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the referral source:

Code	Description
10	Self-referral
20	EMS transport decision
30	Practitioner or health care facility referral
40	Internal facility referral or transfer
50	Law enforcement referral
60	Acute care hospital transfer
70	Other health care facility transfer
88	Other
99	Unknown

Self-referral includes referral by a family member, caretaker, or guardian and requests by the patient or a responsible party for EMS transport to this ED. EMS transport decision includes decisions made by law enforcement-operated EMS units. Referral by a practitioner or health care facility includes referrals by a patient's practitioner or designee, poison control center, occupational health care facility, and educational institution clinic or service, and it excludes a jail or prison health care clinic. Internal facility referral or transfer includes intrahospital referrals and transfers. Law enforcement referral includes referrals by a law enforcement agent (except EMS), court, correctional institution, parole officer, and jail or prison health care clinics or services. Other health care facility transfer includes transfers from intermediate care and other long-term care facilities.

Example:
    Component 1 = 20
    Component 2 = EMS transport decision
    Component 3 = L

Text data also can be entered without an accompanying code, as follows:
    Component 1 = ""
    Component 2 = Self-referral

If no referral source is reported, enter data in the following manner:
    Component 1 = ""

Data Standards or Guidelines

None.

Other References

None.

4

CHIEF COMPLAINT

Definition

Patient's reason for seeking care or attention, expressed in terms as close as possible to those used by patient or responsible informant.

Uses

Data collected on the patient's chief complaint are pivotal to the clinical process and provide an important resource for measuring and evaluating health care services. The chief complaint figures prominently in triage decision making and is a key determinant of the direction and extent of history taking, physical examination, and diagnostic testing in the ED. When ED data on chief complaint are aggregated and linked with process, diagnosis, and financial data, they take on added value for clinical and epidemiologic research, practitioner training, quality management, and health care administration and finance.

Discussion

Chief complaints encompass more than reports of symptoms or complaints. A chief complaint may also be a request for:
— a diagnostic, screening, or preventive procedure.
— treatment or compliance with a practitioner's instructions to seek a specific treatment, procedure, or medication.
— test results.
— an examination required by a third-party.
— a referral, such as follow-up initiated from this ED or elsewhere.
— intervention for a stated diagnosis or disease.

Although data describing the chief complaint are routinely and often repetitively recorded during a single ED visit, the data generally are not classified, coded, and stored in a form that facilitates aggregate analysis. Several established systems are candidates for classifying and coding ED chief complaints, but modifications or adaptations are likely to be needed for routine ED use. Among the candidate systems are the *International Classification of Primary Care (ICPC), Reason for Visit Classification and Coding Manual (RVC), Systematized Nomenclature of Human and Veterinary Medicine — SNOMED International, Read Codes Version 3,* and the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM).* In the interim, text descriptions or local codes can be used.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; if there is more than one chief complaint, the Chief Complaint Group repeats.

---

*The Chief Complaint Group includes data elements 4.06 and 4.07. A single iteration of this group is used to report each chief complaint.

Field Values

Component 1 is the chief complaint code.
Component 2 is the chief complaint descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

For example, to encode headache using the *International Classification of Primary Care* (ICP):

Component 1 = N01
Component 2 = Headache
Component 3 = ICP

Text data also can be entered without an accompanying code, as follows:

Component 1 = ""
Component 2 = Headache

If the chief complaint is unknown, enter data in the following manner:

Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

ICPC (Lamberts and Wood, 1987), *RVC* (National Center for Health Statistics, 1994), *SNOMED International* (Cote et al., 1993), *Read Codes Version 3: A User Led Terminology* (O'Neill et al., 1995), and *ICD-9-CM* (U.S. Department of Health and Human Services, 1995).

4

INITIAL ENCOUNTER FOR CURRENT INSTANCE OF CHIEF COMPLAINT

PART OF THE CHIEF COMPLAINT GROUP (4.06 AND 4.07)

Definition

Indicator that this is patient's first encounter at any health care facility or with any practitioner for current instance of chief complaint.

Uses

Data specifying whether the patient is presenting for an initial or return visit for a chief complaint can yield immediate benefits for clinical decision making and secondary benefits for quality-of-care monitoring and evaluation, health services administration and research, public health surveillance, and epidemiologic studies.

Discussion

This data element is intended to specify whether the chief complaint represents an initial presentation by the patient for a new episode of injury or illness. An episode of injury or illness is a time interval during which the patient suffers from persistent symptoms or signs. For some episodes (e.g., a motor vehicle collision-related injury in which the patient is transported from the scene), determining whether this ED visit is the initial presentation is straightforward. For other episodes (e.g., asthma or angina), determining whether this ED visit is the first presentation of a new episode of illness or a return visit requires consideration of the patient's medical history. This determination may require clinical judgment.

Although patients seek ED care for a variety of purposes, including completion of physical examination forms required by third parties or to request routine health maintenance, the most common reasons are to receive treatment for injury or illness. Injury includes blunt and penetrating injuries, blast injuries, burns, electrical or radiation injuries, bites, stings, aspiration of foreign objects, foreign objects entering body orifices, poisonings, toxic exposures, adverse drug reactions, drownings, near-drownings, strangulations, exposures to environmental extremes, bodily overexertions or strains, maltreatment, and sexual assault. Injury excludes aspiration of vomitus or mucus. Illness refers to symptoms or signs that are perceived as sickness or ill health and that are attributable to a disease or a condition other than injury. Illness frequently heralds disease onset or recurrence, but illness is not synonymous with disease (illness can occur in the absence of a diagnosable disease, and disease can occur without illness manifestations).

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if there is more than one chief complaint, the Chief Complaint Group repeats.

Field Values

Component 1 is the code indicating whether this is the initial encounter.
Component 2 is the descriptor indicating whether this is the initial encounter.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding whether this is the initial visit for the current instance of the chief complaint:

Code	Description
1	Yes
2	No (chief complaint attributable to illness or injury, but this is not the initial encounter)
8	Other (chief complaint not attributable to illness or injury)
9	Unknown

Example:

    Component 1 = 2
    Component 2 = No
    Component 3 = L

Text data also can be entered without an accompanying code, as follows:

    Component 1 = ""
    Component 2 = Yes

If it is not reported whether this is the initial visit, enter data in the following manner:

    Component 1 = ""

Data Standards or Guidelines

None.

Other References

None.

FIRST ED ACUITY ASSESSMENT

Definition

First ED assessment of patient's acuity by practitioner.

Uses

Classification of the patient's acuity characterizes the degree to which the patient's condition is life- or limb-threatening and whether immediate treatment is needed to alleviate symptoms.

Discussion

This assessment often occurs during the triage process, but it is not synonymous with triage. Triage is the process by which patients' needs are matched with available resources, and acuity is one of several factors considered. Most acuity assessment systems evolved from clinical experience or from military and disaster systems. Findings from the Emergency Nurses Association's (ENA) 1995 annual survey of EDs shows that in the United States a 3-level acuity assessment system is most frequently used. However, some EDs use a more extensive set of acuity categories, such as a 5-tiered system that provides further differentiation of higher acuity levels. The table, below, provides three acuity levels that can be hierarchically expanded if necessary. An alternative, locally defined table also may be used.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the code for the patient's acuity.
Component 2 is the patient's acuity descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the patient's acuity:

Code	Description
10	Requires immediate evaluation or treatment
20	Requires prompt evaluation or treatment
30	Time to evaluation or treatment not critical
99	Unknown

Example:
Component 1 = 20
Component 2 = Requires prompt evaluation or treatment
Component 3 = L

Text data also can be entered without an accompanying code, as follows:

Component 1 = ""

Component 2 = Requires immediate evaluation or treatment

When the patient's acuity is unknown, enter data in the following manner:

Component 1 = Unknown

If no acuity assessment is reported, enter data in the following manner:

Component 1 = ""

Data Standards or Guidelines

The ENA National Emergency Department Database: 1995 Annual Survey Report (MacLean, 1996).

Other References

Triage: Meeting the Challenge (ENA, 1992) and *Emergency Nursing: Principles and Practice* (Sheehy, 1992).

4

4.09 DATE/TIME OF FIRST ED ACUITY ASSESSMENT

Definition

Date and time when patient's acuity is first assessed in ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Identifier for practitioner who first assesses patient's acuity in ED.

Uses

The identification of the practitioner who first assesses the patient's acuity in the ED is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (80).

Repetition

No.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2-10 and 14 are not used unless needed for local purposes.

Example:
Component 1 = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Profession or occupation and specialty or subspecialty of practitioner who first assesses patient's acuity in ED.

Uses

The identification of the type of practitioner who first assesses the patient's acuity in the ED is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 163WE003N
Component 2 = Registered nurse, emergency
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Registered nurse, emergency

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

Definition

First ED assessment of patient's responsiveness, gauged by alertness, self-awareness, and reaction to environmental cues or sensory stimuli.

Uses

Data characterizing a patient's responsiveness figure prominently in immediate clinical decision making and provide a baseline for subsequent assessments. Abnormal responsiveness is a manifestation of many illnesses and injuries, and, if found, it generally prompts rapid evaluation and treatment. Data characterizing a patient's responsiveness also are used in clinical research and quality-of-care monitoring.

Discussion

No single screening method for assessing a patient's responsiveness has achieved universal acceptance. However, the AVPU method (alert, verbal response, painful response, unresponsive) is widely taught and used in the United States. AVPU is a simple screening examination, and more sophisticated evaluation is needed to fully understand impaired consciousness.

Data Type (and Field Length)

CE— coded element (60).

Repetition

No.

Field Values

Component 1 is the code for the responsiveness assessment.
Component 2 is the responsiveness assessment descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the responsiveness assessment:

Code	Description
1	*Alert.* The patient is fully responsive, aware of the environment, and capable of responding appropriately to questions about orientation to person, place, and time.
2	*Verbal response.* The patient is not fully alert but responds to verbal stimuli.
3	*Painful response.* The patient does not respond to verbal stimuli but does respond to pain by withdrawing from the pain source, pushing in the direction of the pain source, flexing extremities, or extending extremities.
4	*Unresponsive.* The patient does not respond to any stimuli.
9	Unknown

4

Example:
    Component 1 = 2
    Component 2 = Verbal response
    Component 3 = L
Text data also can be entered without an accompanying code, as follows:
    Component 1 = ""
    Component 2 = Unresponsive
If no responsiveness assessment is reported, enter data in the following manner:
    Component 1 = ""

Data Standards or Guidelines

None.

Other References

None.

DATE/TIME OF FIRST ED RESPONSIVENESS ASSESSMENT

4.13

Definition

Date and time when patient's responsiveness is first assessed in ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4

FIRST ED GLASGOW EYE OPENING COMPONENT ASSESSMENT

Definition

First ED assessment of Glasgow Coma Scale (GCS) eye opening component for injured patient.

Uses

The GCS is widely used in the initial evaluation and serial observation of patients with coma or impaired consciousness, particularly if the patient has sustained blunt or penetrating trauma. The GCS also is used in clinical and epidemiologic research and in trauma care quality monitoring.

Discussion

The GCS is a composite measure that combines separate scores for the patient's eye opening, verbal, and motor responses. Research findings indicate that the GCS is used accurately by experienced and highly trained users but that inexperienced users are prone to make errors. These findings support the continued use of the GCS by qualified personnel but call into question the scale's value when used by untrained or inexperienced staff. Although the GCS is reliable for predicting coma outcome, questions persist about its reliability for monitoring changes in consciousness level or predicting outcome for patients with middle-range GCS scores.

Data Type (and Field Length)

NM — numeric (1).

Repetition

No.

Field Values

When describing the best eye-opening response of patients (all ages), enter one of the following codes.

Code	Description
1	None
2	Opens eyes in response to painful stimulation
3	Opens eyes in response to verbal stimulation
4	Opens eyes spontaneously
8	Not assessed
9	Unknown

Data Standards or Guidelines

Assessment and Prognosis of Coma After Head Injury (Teasdale and Jennett, 1976).

Other References

None.

Definition

First ED assessment of Glasgow Coma Scale (GCS) verbal component for injured patient.

Uses

The GCS is widely used in the initial evaluation and serial observation of patients with coma or impaired consciousness, particularly if the patient has sustained blunt or penetrating trauma. The GCS also is used in clinical and epidemiologic research and in trauma care quality monitoring.

Discussion

The GCS is a composite measure that combines separate scores for the patient's eye opening, verbal, and motor responses. The verbal component score has been modified in various ways to accept age-appropriate behavior. Assignment of a specific age cutoff for the modified verbal component is problematic because of developmental differences in verbal skill acquisition. Verbal skills for a 2-year-old patient may not be at an age-appropriate level, and the infant GCS modification may be more meaningful than the scale used for an adult or older child. Research findings indicate that the GCS is used accurately by experienced and highly trained users but that inexperienced users are prone to make errors. These findings support the continued use of the GCS by qualified personnel but call into question the scale's value when used by untrained or inexperienced staff. Although the GCS is reliable for predicting coma outcome, questions persist about its reliability for monitoring changes in consciousness level or predicting outcome for patients with middle-range GCS scores.

Data Type (and Field Length)

NM — numeric (1).

Repetition

No.

Field Values

When describing the best verbal response of an adult or a child whose verbal skills are appropriate for the adult scale, enter one of the following codes:

Code	Description
1	None
2	Nonspecific sounds
3	Inappropriate words
4	Confused conversation or speech
5	Oriented and appropriate speech
8	Not assessed
9	Unknown

When describing the best verbal response of an infant or a young child who does not have the verbal skills needed for an assessment using the adult scale, enter the one of the following codes:

Code	Description
1	None
2	Moans to pain
3	Cries to pain, screams to pain
4	Irritable cries
5	Coos and babbles
8	Not assessed
9	Unknown

If the patient is intubated and deeply comatose, enter 1 for None, because the patient had no verbal response at the time of intubation. However, if an intubated patient is not deeply comatose and can respond verbally, the practitioner may gauge the response and assign an appropriate score. If the practitioner cannot gauge the response, enter 9.

Data Standards or Guidelines

Assessment and Prognosis of Coma After Head Injury (Teasdale and Jennett, 1976) and *Head and Spinal Cord Injury* (Davis et al., 1992).

Other References

None.

Definition

First ED assessment of Glasgow Coma Scale (GCS) motor component for injured patient.

Uses

The GCS is widely used in the initial evaluation and serial observation of patients with coma or impaired consciousness, particularly if the patient has sustained blunt or penetrating trauma. The GCS also is used in clinical and epidemiologic research and in trauma care quality monitoring.

Discussion

The GCS is a composite measure that combines separate scores for the patient's eye opening, verbal, and motor responses. The motor component score has been modified in various ways to accept age-appropriate behavior. Research findings indicate that the GCS is used accurately by experienced and highly trained users but that inexperienced users are prone to make errors. These findings support the continued use of the GCS by qualified personnel but call into question the scale's value when used by untrained or inexperienced staff. Although the GCS is reliable for predicting coma outcome, questions persist about its reliability for monitoring changes in consciousness level or predicting outcome for patients with middle-range GCS scores.

Data Type (and Field Length)

NM — numeric (1).

Repetition

No.

Field Values

When describing an adult's best motor response, enter one of the following codes:

Code	Description
1	None
2	Extensor posturing in response to painful stimulation
3	Flexor posturing in response to painful stimulation
4	General withdrawal in response to painful stimulation
5	Localization of painful stimulation
6	Obeys commands with appropriate motor response
8	Not assessed
9	Unknown

4

When describing an infant's or child's best motor response, enter one of the following codes:

Code	Description
1	None
2	Abnormal extension (decerebrate)
3	Abnormal flexion (decorticate)
4	Withdraws to pain
5	Withdraws to touch
6	Normal spontaneous movement
8	Not assessed
9	Unknown

This component cannot be assessed if the patient has received a muscle relaxant or paralytic agent.

Data Standards or Guidelines

Assessment and Prognosis of Coma After Head Injury (Teasdale and Jennett, 1976) and *Head and Spinal Cord Injury* (Davis et al., 1992).

Other References

None.

Definition

Date and time when Glasgow Coma Scale (GCS) is first assessed in ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Enter the starting time of the GCS assessment, even if only one GCS component was assessed.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4

4.18 FIRST ED SYSTOLIC BLOOD PRESSURE

Definition

Patient's first measured systolic blood pressure in ED.

Uses

The systolic blood pressure provides an estimate of the severity of injury or illness and is a component of several triage scoring systems.

Discussion

Blood pressure measured by a manual or automatic method can be entered.

Data Type (and Field Length)

NM — numeric (3).

Repetition

No.

Field Values

Enter the patient's systolic blood pressure in mm[Hg] (enter 0 for no systolic blood pressure), or enter one of the following codes:

Code	Description
777	Not measurable, but pulse palpable
888	Not measured
999	Unknown

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Date and time when systolic blood pressure is first measured in ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4.20 FIRST ED DIASTOLIC BLOOD PRESSURE

Definition

Patient's first measured diastolic blood pressure in ED.

Uses

The diastolic blood pressure provides an estimate of the severity of injury or illness and is a component of several triage scoring systems.

Discussion

Blood pressure measured by a manual or automatic method can be entered.

Data Type (and Field Length)

NM — numeric (3).

Repetition

No.

Field Values

Enter the patient's diastolic blood pressure in mm[Hg], or enter one of the following codes:

Code	Description
888	Not measured
999	Unknown

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Patient's first measured heart rate in ED.

Uses

The heart rate provides an estimate of the severity of injury or illness and is a component of several triage scoring systems.

Discussion

Pulse rate, which is measured at a peripheral or central arterial site, is not necessarily equivalent to heart rate. However, pulse rate often serves as a proxy measure for heart rate under the assumption that each heart beat or cycle of electrical activity produces an arterial pulsation.

Data Type (and Field Length)

NM — numeric (3).

Repetition

No.

Field Values

Enter the patient's heart rate (per minute), or enter one of the following codes:

Code	Description
888	Not measured
999	Unknown

Example:
   72

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4

4.22 FIRST ED HEART RATE METHOD

Definition

Method used to first measure patient's heart rate in ED.

Uses

The heart rate provides an estimate of the severity of injury or illness and is a component of several triage scoring systems.

Discussion

Pulse rate, which is measured at a peripheral or central arterial site, is not necessarily equivalent to heart rate. However, pulse rate often serves as a proxy measure for heart rate under the assumption that each heart beat or cycle of electrical activity produces an arterial pulsation.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the code for the method of measuring heart rate.
Component 2 is the descriptor of the heart rate measurement method.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for use in encoding the method of measuring heart rate:

Code	Description
10	Pulse rate measured by palpation
20	Pulse rate measured by automated device
30	Heart rate measured by palpation or auscultation
40	Heart rate measured by automated device
99	Unknown

Example:
Component 1 = 20
Component 2 = Pulse rate measured by automated device
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Pulse rate measured by palpation

If the heart rate is not measured, no entry should be made in this data element.

Data Standards or Guidelines

None.

Other References

None.

Definition

Date and time when heart rate is first measured in ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4.24 FIRST ED RESPIRATORY RATE

Definition

Patient's first measured unassisted respiratory rate in ED.

Uses

The first respiratory rate provides an estimate of the severity of injury or illness and is a component of several triage scoring systems.

Discussion

None.

Data Type (and Field Length)

NM — numeric (3).

Repetition

No.

Field Values

Enter the patient's respiratory rate (per minute), or enter one of the following codes:

Code	Description
666	Agonal respirations
777	Respiratory assistance with manual or mechanical ventilation
888	Not measured
999	Unknown

Example:
16

Data Standards or Guidelines

None.

Other References

None.

Definition

Date and time when unassisted respiratory rate is first measured in ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4

4.26 FIRST ED TEMPERATURE READING

Definition

Patient's first measured temperature in ED.

Uses

The patient's temperature is a basic physiologic parameter, the derangement of which can indicate underlying pathology.

Discussion

None.

Data Type (and Field Length)

NM — numeric (4).

Repetition

No.

Field Values

Enter the patient's temperature measurement in Celsius or Fahrenheit to the nearest tenth of a degree (e.g., 37.0 or 98.6), or enter one of the following codes:

Code	Description
8888	Not measured
9999	Unknown

Data Standards or Guidelines

None.

Other References

None.

FIRST ED TEMPERATURE READING ROUTE 4.27

Definition

Route of patient's first measured temperature in ED.

Uses

The patient's temperature is a basic physiologic parameter, and a temperature derangement can indicate underlying pathology.

Discussion

To properly interpret the temperature value entered, the route of measurement must be known.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the route code.
Component 2 is the route descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for use as temperature route codes:

Code	Description
1	Oral
2	Tympanic membrane
3	Rectal
4	Axillary
5	Urinary bladder
8	Other
9	Unknown

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Oral

Data Standards or Guidelines

None.

Other References

None.

DATE/TIME OF FIRST ED TEMPERATURE READING

Definition

Date and time when temperature is first measured in ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Patient's body weight measured in ED.

Uses

Body weight provides an index of nutrition and growth that has both clinical and research applications. Information about the patient's weight is used frequently in the evaluation and management of the pediatric ED patient. Although this information is used less routinely when the patient is an adult, it enters into some diagnostic and treatment decisions.

Discussion

None.

Data Type (and Field Length)

NM — numeric (5).

Repetition

No.

Field Values

Enter the patient's body weight in kilograms, recorded to the nearest tenth of a kilogram (e.g., 5.5), or enter one of the following codes:

Code	Description
88888	Not measured
99999	Unknown

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

4.30 PREGNANCY STATUS REPORTED IN ED

Definition

Current pregnancy status of patient as reported by patient or responsible informant.

Uses

Data on whether a patient is pregnant are used routinely in clinical care of the patient in her childbearing years. These data have additional uses in quality-of-care monitoring and evaluation, health care administration, and clinical, health services, and epidemiologic research.

Discussion

This data element includes a reported pregnancy regardless of whether it is suspected or confirmed. A woman may suspect that she is pregnant although she is not and vice versa. A suspicion of pregnancy aids in making a diagnosis, but it is not equivalent to a confirmed diagnosis.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the code for pregnancy status.
Component 2 is the pregnancy status descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for use in encoding pregnancy status:

Code	Description
1	Yes
2	No
3	Not applicable
9	Unknown

Example:
Component 1 = 2
Component 2 = No
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Yes, patient is pregnant

Do not enter data in this field if information about pregnancy status was not requested or not recorded.

Data Standards or Guidelines

None.

Other References

None.

4

4.31 DATE OF LAST TETANUS IMMUNIZATION

Definition

Date when patient was last immunized for tetanus as reported by patient or responsible informant.

Uses

Data on whether a patient's immunization to tetanus is current are used routinely in the clinical care of ED patients, particularly patients with open wounds. These data have additional uses in quality-of-care monitoring and evaluation, health care administration, and clinical, health services, and epidemiologic research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

Year, month, and date of immunization are entered in the format YYYYMMDD (the HHMM[SS] portion of the time stamp is not used unless needed for local purposes).

The following conventions for data entry apply:
— "" if the patient was never immunized.
— 9999 for YYYY if the date was requested, but it is unknown.
— the value for YYYY if the year is known, but the remainder of the date was not requested or was not recorded.
— the value for YYYY and 99 for MM if only the year is known.
— the value for YYYYMM if the year and month are known, but the remainder of the date was not requested or was not recorded.
— the value for YYYYMM and 99 for DD if only the year and month are known.

The date of immunization can be estimated. For example in 1997 if the date is estimated to be 4 years ago, then enter 199399. Do not enter data in this field if information about the immunization date was not requested or not recorded.

Data Standards or Guidelines

None.

Other References

None.

Definition

Medication to which patient is allergic as reported by patient or responsible informant.

Uses

ED practitioners routinely obtain data from patients or responsible informants to establish or rule out a patient's history of allergies to medications. These data provide immediate ED patient care benefits by deterring the use of medications that can induce an allergic reaction. Subsequent communication of these data to practitioners responsible for the patient's care provides additional safeguards and, in some instances, may lead to careful assessment of the reported allergic reaction.

Discussion

Established systems that can be used to classify and code specific medications include the National Drug Codes (NDC) maintained by the Food and Drug Administration (FDA) and the World Health Organization Drug Record Codes. In addition, numerous local coding systems are in use.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes.

Field Values

Component 1 is the medication code.
Component 2 is the medication descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 0004-0050-01
Component 2 = Bactrim
Component 3 = NDC

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Penicillin

If no medication allergy is reported (e.g., patient or responsible informant states "none known"), enter text as follows:
Component 1 = ""
Component 2 = No known medication allergy

If a medication allergy is reported, but the specific medication allergen is unknown to the patient or a responsible informant, enter text as follows:
Component 1 = ""
Component 2 = Allergic to unknown medication

If a medication allergy history is not obtained (e.g., unconscious patient), enter text as follows:
Component 1 = ""
Component 2 = Medication allergy history not obtained

Data Standards or Guidelines

None.

Other References

National Drug Code Directory (FDA, 1996) and *World Health Organization (WHO) Drug Dictionary* (WHO Collaborating Centre for International Drug Monitoring, 1996).

ED History and Physical Examination Data

S
E
C
T
I
O
N

5

5

Definition

Beginning date and time of first evaluation by ED practitioner responsible for performing brief screening evaluation, simultaneous assessment and resuscitation, or more comprehensive history and physical examination.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

An emergency physician usually conducts this evaluation, but it may be conducted by another practitioner, such as an advanced practice nurse (e.g., clinical nurse specialist, nurse practitioner), physician assistant, resident, or intern, or by a supervised student practitioner (e.g., medical student, physician assistant student). This evaluation is not the acuity, triage, or primary nurse assessment.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

DATE/TIME OF ILLNESS OR INJURY ONSET

Definition

Onset date and time of acute illness or injury most responsible for precipitating patient's ED visit.

Uses

Data that specify when a patient's presenting symptoms or complaints began are used by practitioners to triage, evaluate, and make diagnoses in the ED. In aggregate form, these data also support clinical, epidemiologic, and health services research.

Discussion

This data element applies to patients whose ED visits were precipitated by an acute illness or injury. Injury includes blunt and penetrating injuries, blast injuries, burns, electrical or radiation injuries, bites, stings, aspiration of foreign objects, foreign objects entering body orifices, poisonings, toxic exposures, adverse drug reactions, drownings, near-drownings, strangulations, exposures to environmental extremes, bodily overexertions or strains, maltreatment, and sexual assault. Injury excludes aspiration of vomitus or mucus. Illness refers to symptoms or signs that are perceived as sickness or ill health and that are attributable to a disease or a condition other than injury. Illness frequently heralds disease onset or recurrence, but illness is not synonymous with disease (illness can occur in the absence of a diagnosable disease, and disease can occur without illness manifestations). This data element does not apply to patient requests for routine physical examinations, scheduled return ED visits following initial treatment (e.g., suture removals), or other ED visits in which the timing of symptom or complaint onset is not used by practitioners.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

Enter data only for the patient whose visit was precipitated by an illness or injury. See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

5

Definition

Brief description of injury incident that precipitated patient's ED visit.

Uses

Data describing the cause of injury are used in evaluating and treating individual patients, and these data are useful for public health surveillance and clinical and epidemiologic research.

Discussion

Injury includes blunt and penetrating injuries, blast injuries, burns, electrical or radiation injuries, bites, stings, aspiration of foreign objects, foreign objects entering body orifices, poisonings, toxic exposures, adverse drug reactions, drownings, near-drownings, strangulations, exposures to environmental extremes, bodily overexertions or strains, maltreatment, and sexual assault. Injury excludes aspiration of vomitus or mucus. This data element is intended for use in describing the injury that led to the patient's ED visit, and its intended use encompasses initial treatments, treatments of injury sequelae (late effects), patient transfers from other health care facilities, and referrals from elsewhere within the hospital. This information is not intended for use in a scheduled return ED visit following initial treatment (e.g., suture removal). Researchers can use the injury incident description in two ways: 1) they can read unaltered text or search it electronically for words or phrases of interest; 2) they can apply injury coding and classification systems to existing text entries.

Data Type (and Field Length)

ST — string data (200).

Repetition

No.

Field Values

Enter a concise text description of the injury-producing event or circumstance, including the mechanism by which bodily harm was produced and what the patient was doing when injured. Specify the agent or class of agents in poisonings, toxic exposures, and adverse drug reactions. In cases of assault or maltreatment, characterize the relationship between the patient and the person or persons who caused the injury.

Examples:

Beaten by boyfriend with a two-by-four piece of wood during domestic dispute.
Motorcyclist skidded on highway and struck telephone pole.

Data Standards or Guidelines

None.

Other References

None.

5.04   CODED CAUSE OF INJURY

Definition

Encoded description of injury event that precipitated patient's ED visit.

Uses

Coded cause-of-injury data are used in public health surveillance, clinical and epidemiologic research, health care services administration, and quality-of-care monitoring and evaluation.

Discussion

This data element is intended for use in encoding the injury that led to the patient's ED visit, including how the event happened (external cause), the intent (unintentional or intentional, such as suicide or assault), and the type of place where the injury event occurred.

Its intended use encompasses initial treatments, treatments of injury sequelae (late effects), patient transfers from other health care facilities, and referrals from elsewhere within the hospital. This data element is not intended for use in a scheduled return ED visit following initial treatment (e.g., suture removal). The *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* external cause-of-injury codes (E codes) are the predominant system used in the United States to code the cause of nonfatal, injury-producing events (U.S. Department of Health and Human Services [USDHHS], 1995). The CDC's National Center for Health Statistics (NCHS) issues *Guidelines for Coding External Causes of Injuries, Poisonings and Adverse Effects of Drugs* to help standardize the assignment of E codes to hospital, outpatient clinic, emergency department, physician's office, and other ambulatory care records (NCHS, 1996). These guidelines call for coders to assign appropriate E codes to all initial treatments of an injury, to use late effect E codes to describe sequelae of an injury, to use the full range of E codes to completely describe the injury's cause, the intent, and the place of occurrence, if applicable, and to assign as many E codes as necessary to fully explain the cause of injury. The guidelines call for use of place-of-occurrence codes (E849) in conjunction with any other E code. If two or more unrelated events cause separate injuries, an E code should be assigned for each cause. If a chain of events causes one or more injuries, then the first-listed E code should be assigned for the most direct (proximal) cause of the most serious injury, with some exceptions specified in the guidelines.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes, if there is more than one cause of injury.

Field Values

Component 1 is the cause code.
Component 2 is the cause descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = E965.0
Component 2 = Assault by handgun
Component 3 = IC9

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Fall from bed

If unknown or none is applicable, enter Unknown or "" in Component 1 and do not make entries in Components 2–6.

Data Standards or Guidelines

ICD-9-CM (USDHHS, 1995) and *NCHS Guidelines for Coding External Causes of Injuries, Poisonings and Adverse Effects of Drugs* (NCHS, 1996).

Other References

International Statistical Classification of Diseases and Related Health Problems, 10th Revision (World Health Organization [WHO], 1992), *Draft: International Classification for External Cause of Injuries* (WHO Working Group on Injury Surveillance Methodology Development, 1995), and *NOMESCO Classification of External Causes of Injury* (Nordic Medico-Statistical Committee, 1996).

5.05   INJURY INCIDENT LOCATION TYPE

Definition

Type of place where patient's injury occurred.

Uses

Data on the type of place where an injury occurred help to describe the injury-producing event and are valuable for planning and evaluating injury prevention programs.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes, if two or more unrelated events cause separate injuries at separate locations.

Field Values

Component 1 is the code for the location type.
Component 2 is the location type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the injury incident location type:

Code	Description
10	Home
20	Residential institution
30	School, other institution, and public administrative area
40	Sports and athletic area
50	Street and highway
60	Trade and service area
70	Industrial and construction area
80	Farm
88	Other specified place
99	Unspecified place

Example:
Component 1 = 20
Component 2 = Residential institution
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Shopping mall

Data Standards or Guidelines

International Statistical Classification of Diseases and Related Health Problems, 10th Revision (World Health Organization, 1992).

Other References

None.

INJURY ACTIVITY

Definition

Type of activity patient was involved in at time of injury.

Uses

The type of activity at the time of injury helps to describe the circumstances of the injury-producing event and identify injuries that are of interest to government agencies, sports and athletic associations, and educational authorities. Identification of work-related injuries serves multiple purposes.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes, if a single injury cannot be described adequately with one activity code (e.g., professional athlete injured during a sports contest) or if injuries occur during separate activities (e.g., burn during school science experiment and head injury from crash on the way to hospital).

Field Values

Component 1 is the code for injury activity.
Component 2 is the injury activity descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the injury activity. Assign the appropriate code for all initial treatments of an injury, including transfers from another health care facility or referrals from elsewhere in the hospital. An entry should not be made when the ED visit is for follow-up or for late effects of an old injury.

Code	Description
10	*Sports.* Comprises exercises with functional purpose (e.g., golf, jogging, riding, school sports and athletics, skiing, swimming, hiking, water-skiing). Includes activities described as a ball game, but excludes those described as play with ball.
20	*Leisure.* Comprises activities with the purpose of entertainment or recreation (e.g., performing hobby activities or going to the theater, a dance, or a party). Includes activities described as play with ball, but excludes activities described as a ball game.
30	*Paid work.* Comprises manual or professional work for salary, bonus, or other income.

Includes:

— apprentice and vocational activities
— rest breaks on employer premises (in hallway, rest room, cafeteria, storage area)

Code	Description
	— work on, arrival at, or departure from employer parking lot
	— work for pay or compensation at home
	— work in family business, including family farm (activity should be clearly related to profit-oriented business)
	— traveling on business, including to and from customer/business contacts and work activities in which a vehicle is considered the work environment

Excludes:
- recreational activities on employer-controlled facilities
- visits for nonwork purposes, when not on official business
- homemaking activities by a homemaker
- nonprofit work for oneself (e.g., mowing lawn, repairing roof, or performing hobby or recreational activities)
- school activities by a student
- vehicle use (personal or commercial) for nonwork purposes
- commutes to or from work site
- illicit work (e.g., drug trafficking)

Code	Description
40	*Unpaid work.* Comprises duties for which one would not normally gain an income. Includes volunteer work and domestic duties (e.g., caring for children and relatives, cleaning, cooking, gardening, and maintaining a household). Excludes learning activities (e.g., attending school or university).
50	*Educational activity.* Comprises learning activities (e.g., attending school or university). Excludes apprenticeship.
60	*Vital activity.* Comprises resting, sleeping, eating, or engaging in other vital activities.
88	Other specified activity
99	Unknown activity

Example:
Component 1 = 40
Component 2 = Unpaid work
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Vital activity

Do not enter data in this field if information about injury activity was not requested or not recorded.

Data Standards or Guidelines

Classifying Deaths as on the Job (Harshbarger and Stout, 1995), *Draft: International Classification for External Cause of Injuries* (World Health Organization Working Group on Injury Surveillance Methodology Development, 1995), and *NOMESCO Classification of External Causes of Injury* (Nordic Medico-Statistical Committee, 1996).

Other References

None.

INJURY INTENT

Definition

Indicator of whether injury resulted from unintentional or intentional act or one of unknown intent.

Uses

Data describing the injury intent are used in immediate patient care and to arrange appropriate consultations and follow-up. For example, recognizing that an injured patient's wounds were deliberately self-inflicted allows emergency physicians and nurses to take actions that prevent further self-destructive behavior, and establishing that a patient's injury resulted from an assault can be instrumental in protecting the patient from future harm. Cumulative injury intent data are useful for public health surveillance, health care planning and administration, and clinical, health services, and epidemiologic research.

Discussion

Injury intent data are needed to encode the cause of injury using the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* external cause-of-injury codes (E codes).

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes, if two or more unrelated events cause separate injuries.

Field Values

Component 1 is the code for injury intent.
Component 2 is the injury intent descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding injury intent. Assign the appropriate code for all initial treatments of an injury, including transfers from another health care facility or referrals from elsewhere within the hospital. Do not make an entry when the ED visit is for follow-up or for late effects of an old injury.

Code	Description
10	Unintentional
20	Intentionally self-inflicted, confirmed
30	Intentionally self-inflicted, suspected
40	Assault, confirmed
50	Assault, suspected
60	Legal intervention (injured by police or other authorities during law enforcement)
99	Undetermined

Example:
Component 1 = 10
Component 2 = Unintentional
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Intentionally self-inflicted, confirmed

Do not enter data in this field if information about injury intent was not requested or not recorded.

Data Standards or Guidelines

None.

Other References

ICD-9-CM (U.S. Department of Health and Human Services, 1995), *Draft: International Classification for External Cause of Injuries* (World Health Organization Working Group on Injury Surveillance Methodology Development, 1995), and *NOMESCO Classification of External Causes of Injury* (Nordic Medico-Statistical Committee, 1996).

5.08 SAFETY EQUIPMENT USE

Definition

Use or nonuse of equipment designed to prevent injury during vehicle crash or other injury-producing event that precipitated patient's ED visit.

Uses

This information provides clinically useful details about the patient's use or nonuse of protective and safety equipment. In some instances, this information can be used to corroborate prehospital records. When aggregated, data on the use status of protective and safety equipment are used for public health surveillance and clinical and epidemiologic research.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; this data element repeats to include as many of the coded items of safety equipment as are applicable to the injury-producing incident.

Field Values

Component 1 is the equipment use code.
Component 2 is the equipment use descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

In Component 1, a 2-part, alphanumeric code can be used to encode safety equipment use or deployment. The first part of the code is a single character that specifies safety equipment use status:

Code	Description
A	Used or deployed
B	Not used or deployed
C	Unknown whether used or deployed

Lack of information about whether a specific type of safety equipment is available is equivalent to lack of information about whether it was used or deployed (i.e., enter C in either case). The second part of the code is a 3-digit numeric designator for the specific type of safety equipment. The following table provides a set of recommended safety equipment designators:

Code	Description
010	Shoulder belt
020	Lap belt
030	Seat belt, not otherwise specified
040	Driver's front air bag
050	Passenger's front air bag
060	Front air bag, not otherwise specified

Code	Description
070	Side air bag
080	Air bag, not otherwise specified
090	Child safety seat
100	Helmet
110	Eye protection
120	Protective clothing
130	Personal flotation device
888	Other protective gear

For instance, enter A010 in Component 1 to indicate that a shoulder belt was used. In conjunction with a coded entry in Component 1, a text description should be entered in Component 2 and a coding system identifier should be entered in Component 3.

A repetition of this data element may be needed to report whether the patient used all the safety equipment appropriate to the injury incident. For example, if a patient had worn both a shoulder and lap belt (a 3-point belt) while traveling as a passenger in a car that crashed, but the air bag deployment status was unknown, the following iterations of the data element would be recorded:

Iteration 1 — Component 1 = A010

Component 2 = Shoulder belt used

Component 3 = L

Iteration 2 — Component 1 = A020

Component 2 = Lap belt used

Component 3 = L

Iteration 3 — Component 1 = C050

Component 2 = Unknown whether passenger's side air bag deployed

Component 3 = L

A hierarchical expansion of the table designating safety equipment types is needed for more specific descriptions or additional descriptions.   For example, the child safety seat and personal flotation device categories can be expanded as follows:

Code	Description
091	Rear-facing child safety seat
092	Front-facing child safety seat
093	Child safety seat, not otherwise specified
131	Flotation cushion
132	Flotation vest
133	Flotation device, not otherwise specified

Data Standards or Guidelines

None.

Other References

Critical Automated Data Reporting Elements (CADRE) (National Highway Traffic Safety Administration [NHTSA], 1992) and *Uniform Pre-Hospital Emergency Medical Services Data Conference Final Report* (NHTSA, 1994).

CURRENT THERAPEUTIC MEDICATION

PART OF THE CURRENT THERAPEUTIC MEDICATION GROUP (5.09–5.13)*

Definition

Current therapeutic medication used by patient.

Uses

Data on the current management of a patient's health problems are needed to evaluate and treat the patient in the ED. These data also have research value because they provide an indication of existing medical conditions among patients treated in the ED.

Discussion

This data element includes prescription and nonprescription medications. Established systems that can be used to classify and code specific medications include the National Drug Codes (NDC) maintained by the Food and Drug Administration (FDA) and the World Health Organization Drug Record Codes. In addition, numerous local coding systems are in use.

Data Type (and Field Length)

CE — coded element (100).

Repetition

Yes; if more than one medication is reported, this data element repeats with the Current Therapeutic Medication Group.

Field Values

Component 1 is the medication code.
Component 2 is the medication descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 0047-0402-30
Component 2 = Ampicillin 250 mg tab
Component 3 = NDC

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Penicillin

If it is unknown whether the patient is currently using a medication, enter data in the following manner:
Component 1 = Unknown

If no current medication use is reported by the patient or a responsible informant, enter data in the following manner:
Component 1 = ""

---

*The Current Therapeutic Medication Group includes data elements 5.09–5.13. A single iteration of this group is used to report each medication that the patient currently is using.

Data Standards or Guidelines

None.

Other References

National Drug Code Directory (FDA, 1996) and *World Health Organization (WHO) Drug Dictionary* (WHO Collaborating Centre for International Drug Monitoring, 1996).

5

Definition

Current therapeutic medication dose at each administration.

Uses

Data on the current management of a patient's health problems are needed to evaluate and treat the patient in the ED. These data also have research value because they provide an indication of existing medical conditions among patients treated in the ED.

Discussion

None.

Data Type (and Field Length)

NM — numeric (20).

Repetition

Yes; if more than one medication is reported, this data element repeats with the Current Therapeutic Medication Group.

Field Values

Enter a number greater than 0.

Examples:
   0.25
   10

Data Standards or Guidelines

None.

Other References

None.

5

Definition

Units for current therapeutic medication dose.

Uses

Data on the current management of a patient's health problems are needed to evaluate and treat the patient in the ED. These data also have research value because they provide an indication of existing medical conditions among patients treated in the ED.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is reported, this data element repeats with the Current Therapeutic Medication Group.

Field Values

Component 1 is the code for units.
Component 2 is the units descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

In *Health Level 7, Version 2.3* (HL7, 1996) the default system for encoding units consists of the ISO (International Organization for Standards) units abbreviations plus ISO extensions (ISO+) (see *HL7,* Figure 7-7).
Example:
Component 1 = mL
Component 2 = milliliter
Component 3 = ISO+

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = mg/kg

If none or unknown is applicable, enter "" or Unknown in Component 1 and do not make entries in Components 2–6.

Data Standards or Guidelines

ISO 2955-83 Information Processing — Representation of SI and Other Units in Systems with Limited Character Sets (ISO, 1983).

Other References

Health Level 7, Version 2.3 (HL7, 1996).

5.12	CURRENT THERAPEUTIC MEDICATION SCHEDULE

PART OF THE CURRENT THERAPEUTIC MEDICATION GROUP (5.09–5.13)

Definition

Frequency and duration of administration of current therapeutic medication.

Uses

Data on the current management of a patient's health problems are needed to evaluate and treat the patient in the ED. These data also have research value because they provide an indication of existing medical conditions among patients treated in the ED.

Discussion

None.

Data Type (and Field Length)

TQ — timing/quantity (200).

Repetition

Yes; if more than one medication is reported, this data element repeats with the Current Therapeutic Medication Group.

Field Values

Component 2 is the frequency of administration.
Component 3 is the duration of administration.
Component 8 is the text description of special instructions for medication use.
Component 1 is set to the default value of 1, and Components 4-7 and 9-10 are not used unless needed for local purposes.

Examples:

For a medication administered every 6 hours for 10 days, enter data in the following manner:

Component 2 = Q6H
Component 3 = D10

For a medication administered twice a day for an indefinite duration, enter data in the following manner:

Component 2 = BID
Component 3 = INDEF

Enter Unknown in any component, as necessary. For more information, see TQ in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

None.

Definition

Route by which current therapeutic medication is administered.

Uses

Data on the current management of a patient's health problems are needed to evaluate and treat the patient in the ED. These data also have research value because they provide an indication of existing medical conditions among patients treated in the ED.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is reported, this data element repeats with the Current Therapeutic Medication Group.

Field Values

Component 1 is the code for the administration route.
Component 2 is the administration route descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table of codes, specified in *Health Level 7, Version 2.3* (HL7, 1996) is recommended for encoding the route of administration (see *HL7*, Table 0162):

Code	Description
AP	Apply externally
B	Buccal
DT	Dental
EP	Epidural
ET	Endotracheal tube
GTT	Gastronomy tube
GU	Genitourinary irrigant
IA	Intraarterial
IB	Intrabursal
IC	Intracardiac
ICV	Intracervical (uterus)
ID	Intradermal
IH	Inhalation
IHA	Intrahepatic artery
IM	Intramuscular
IMR	Immerse body part
IN	Intranasal

IO	Intraocular
IP	Intraperitoneal
IS	Intrasynovial
IT	Intrathecal
IU	Intrauterine
IV	Intravenous
MM	Mucous membrane
MTH	Mouth
NG	Nasogastric
NP	Nasal prongs
NS	Nasal
NT	Nasotracheal tube
OP	Ophthalmic
OT	Otic
OTH	Other/miscellaneous
PF	Perfusion
PO	Oral
PR	Rectal
RM	Rebreather mask
SC	Subcutaneous
SD	Soaked dressing
SL	Sublingual
TD	Transdermal
TL	Translingual
TP	Topical
TRA	Tracheostomy
UR	Urethral
VG	Vaginal
VM	Ventimask
WND	Wound

Example:
   Component 1 = PO
   Component 2 = Oral
   Component 3 = HL70162

Text data also can be entered without an accompanying code, as follows:
   Component 1 = ""
   Component 2 = Intravenous.

Data Standards or Guidelines
None.

Other References
Health Level 7, Version 2.3 (HL7, 1996).

Definition

Type of clinical finding reported (e.g., history of present illness, past medical history, or physical examination).

Uses

Specification of the clinical finding type is necessary for interpreting the clinical finding report.

Discussion

The Logical Observation Identifier Names and Codes (LOINC) Committee, coordinated at Regenstrief Institute for Health Care, Indianapolis, Indiana, is developing a coding system for a wide variety of laboratory and clinical data types. When LOINC codes for history and physical examination findings are available, they should be used to encode the ED clinical finding type. In the interim, use locally defined codes. A recommended, basic framework for such a coding system is provided in the table below. This table can be hierarchically expanded to accommodate whatever level of specificity is needed.

Data Type (and Field Length)

CE — coded element (590).

Repetition

Yes; the Multipurpose Clinical Finding Group repeats to record each clinical finding.

Field Values

Component 1 is the code for the finding type.
Component 2 is the finding type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended to encode clinical finding types:

Code	Description
HX00000	Patient history
HX01000	Source of history
HX01500	Chief complaint
HX02000	History of present illness
HX03000	Problem list

---

*The Multipurpose Clinical Finding Group includes data elements 5.14–5.19. A single iteration of this group is used to report each clinical history or physical examination finding (i.e., clinical finding). This group is not used to record information about a diagnostic procedure (i.e., one intended to obtain information beyond that obtained in a clinical history or examination) (see the ED Procedure Group and the ED Diagnostic Result Reporting Group, data elements 6.01–6.10).

Code	Description
HX04000	Past history
HX04050	General health
HX04100	Prior major illnesses and injuries
HX04150	Prior operations
HX04200	Prior hospitalizations
HX04250	Prior outpatient visits
HX04300	Current medications
HX04350	Allergies
HX04400	Growth and developmental history
HX04450	Immunization status
HX04500	Feeding/dietary status
HX04550	Physical functioning
HX04600	Mental and emotional well-being
HX04650	Cognitive functioning
HX05000	Social history
HX05050	Marital status and/or living arrangements
HX05150	Current employment
HX05200	Occupational history
HX05250	Alcohol use
HX05251	Usual number of drinks per drinking day
HX05256	Binge drinking episodes per month
HX05300	Tobacco use
HX05301	Cigarette packs smoked per day
HX05306	Cigarette pack-years
HX05350	Other nonmedical drug use
HX05400	Level of education
HX05450	Sexual history
HX05500	Travel history
HX05550	Other relevant social factors
HX06000	Family history
HX07000	Review of systems
HX07050	Constitutional symptoms
HX07100	Eyes
HX07150	Ears, nose and sinuses, mouth and throat
HX07200	Cardiovascular
HX07300	Respiratory
HX07400	Gastrointestinal
HX07500	Genitourinary
HX07560	Reproductive
HX07570	Urinary
HX07600	Musculoskeletal

Code	Description
HX07700	Integumentary
HX07710	Skin
HX07730	Breasts
HX07750	Neurologic
HX07800	Psychiatric
HX07850	Endocrine
HX07900	Hematologic/lymphatic
HX07950	Allergic/immunologic

Code	Description
PE01000	Physical examination
PE01100	General physical appearance
PE01200	Blood pressure
PE01300	Pulse
PE01400	Respiratory rate
PE01500	Temperature
PE01600	Weight
PE01700	Glasgow Coma Scale (GCS)
PE01710	GCS eye component
PE01720	GCS verbal component
PE01730	GCS motor component

Code	Description
PE02000	Physical examination by body areas
PE02100	Head, including face
PE02150	Neck
PE02200	Chest
PE02205	Chest wall
PE02210	Breasts
PE02230	Axilla
PE02240	Heart
PE02270	Lungs (includes thoracic respiratory movements)
PE02300	Abdomen
PE02400	Groin
PE02450	Pelvis
PE02500	Genitalia
PE02510	Male genitalia
PE02530	Female genitalia
PE02600	Buttocks
PE02650	Anus and rectum
PE02700	Back
PE02800	Upper extremity
PE02805	Hand
PE02825	Wrist
PE02840	Forearm
PE02850	Elbow

Code	Description
PE02865	Upper arm
PE02875	Shoulder
PE02900	Lower extremity
PE02905	Foot
PE02925	Ankle
PE02940	Calf
PE02950	Knee
PE02965	Thigh
PE02975	Hip
PE03000	Physical examination by organ systems
PE03050	Eyes
PE03100	Ears, nose, mouth, and throat
PE03110	Ears
PE03130	Nose
PE03150	Mouth
PE03170	Throat
PE03200	Cardiovascular
P03210	Cardiac
P03250	Peripheral vascular
PE03300	Respiratory
PE03400	Gastrointestinal
PE03500	Genitourinary
PE03600	Musculoskeletal
PE03700	Integumentary
PE03800	Neurologic
PE03810	Mental status
PE03830	Sensation
PE03850	Strength
PE03870	Balance and coordination
PE03890	Deep tendon reflexes
PE03900	Psychiatric
PE03950	Hematologic/lymphatic/immunologic

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = History of present illness, severity of symptom

Data Standards or Guidelines

Logical Observation Identifier Names and Codes (LOINC) Database: A Public Use Set of Codes and Names for Electronic Reporting of Clinical Laboratory Test Results (Forrey et al., 1996).

Other References

Physicians' Current Procedural Terminology (American Medical Association, 1997).

Definition

History or physical examination finding.

Uses

History and physical findings are used in the immediate care of the patient and for clinical follow-up. Selected historical and physical findings have additional value in research and quality-of-care monitoring and evaluation.

Discussion

The clinical finding can be expressed as text, a number, or any other valid data type.

Data Type (and Field Length)

Variable data type (up to 65,536).

Repetition

Yes; the Multipurpose Clinical Finding Group repeats to record each clinical finding.

Field Values

Depending on the observation, the clinical finding may be entered by using any valid *Health Level 7, Version 2.3* data type, including text (e.g., rales at right lung base), numeric (e.g., 100 [apical rate]), or code (e.g., Class II [NYHA]).

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996) and *E1238-94* (ASTM, 1994).

Other References

None.

5.16 DATE/TIME ED CLINICAL FINDING OBTAINED

Definition

Date and time when history or physical examination finding is obtained.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

This data element can be used to report the date and time when a patient is examined, a responsible informant is interviewed, an existing medical record is reviewed, or other clinical data are obtained.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the Multipurpose Clinical Finding Group repeats to record each clinical finding.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

5

Definition

Identifier for practitioner who obtains clinical finding.

Uses

The identification of the practitioner is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (80).

Repetition

Yes; the Multipurpose Clinical Finding Group repeats to record each clinical finding.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.
Example:
Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Profession or occupation and specialty or subspecialty of practitioner who obtains clinical finding.

Uses

Identification of the practitioner type is needed for a complete clinical record. This information also is used for continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; the Multipurpose Clinical Finding Group repeats to record each clinical finding.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BE0004Y
Component 2 = Emergency physician
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Emergency physician

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

Definition

Source of history or physical examination finding.

Uses

This data element is used in direct patient care and in follow-up.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; the Multipurpose Clinical Finding Group repeats to record each clinical finding.

Field Values

Component 1 is the code indicating the data source.
Component 2 is the data source descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding the clinical finding data source:

Code	Description
10	Patient
20	Paramedic/emergency medical technician
30	Parent
40	Spouse/partner
50	Other family member
60	Caretaker
70	Nurse
80	Physician
90	Other practitioner
100	Acquaintance
110	Bystander
120	Law enforcement personnel
130	Existing medical records
888	Other source
999	Unknown source

An entry of 70, 80, or 90 is intended for use when data are obtained from a practitioner who cared for the patient prior to this ED visit.

Example:
    Component 1 = 10
    Component 2 = Patient
    Component 3 = L
Text data also can be entered without an accompanying code, as follows:
    Component 1 = ""
    Component 2 = Primary care physician

Data Standards or Guidelines
None.

Other References
None.

ED PROCEDURE AND RESULT DATA

S
E
C
T
I
O
N

6

Definition

Explanation of why procedure was ordered.

Uses

For some ED procedures, such as diagnostic imaging studies and invasive therapeutic interventions, an explicit indication for the procedure is recorded to aid patient evaluation or management. A statement explaining why a procedure was ordered may also serve quality management and reimbursement purposes.

Discussion

No universal system exists for encoding the reason for ordering a procedure. Until such a system is developed, local codes may be used or a text explanation of why the procedure was ordered may be entered.

Data Type (and Field Length)

CE — coded element (300).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed.

Field Values

Component 1 is the code for the procedure indication.
Component 2 is the procedure indication descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Knee joint effusion, unknown etiology

Enter "" in Component 1 if no explanation of ED procedure indication is warranted.
Enter Unknown in Component 1 if the explanation is not known.

Data Standards or Guidelines

None.

Other References

None.

_____

*The ED Procedure Group includes data elements 6.01–6.08. A single iteration of this group is used to describe either a diagnostic or a therapeutic procedure performed during the ED visit. A diagnostic procedure is one intended to produce information about a patient's problem or condition beyond the information obtained in a clinical history or physical examination. A therapeutic procedure is one intended to produce a beneficial effect on the course of a patient's disease process or physiologic status. In some instances a single procedure will be both diagnostic and therapeutic. Each result of a diagnostic procedure is recorded in an ED Diagnostic Result Reporting Group (see data elements 6.09 and 6.10). The effect of a therapeutic procedure on the patient's problem or condition can be recorded in an ED Outcome Observation Group (see data elements 8.30–8.34).

ED PROCEDURE

Definition

Service or intervention, not part of routine history or physical examination, that is designed for diagnosis or therapy.

Uses

Documentation of procedures performed during a patient's ED visit is needed for clinical care, quality management, reimbursement, administration, and clinical and health services research.

Discussion

The predominant system for coding ED procedures in the United States is the *Physicians' Current Procedural Terminology* (American Medical Association [AMA], 1997), abbreviated C4 in *HL7, Version 2.3* (HL7, 1996). Several systems are available to code nursing interventions. Local codes or concise descriptions without codes can be used as required.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed.

Field Values

Component 1 is the procedure code.
Component 2 is the procedure descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Examples:
Component 1 = 93000
Component 2 = Electrocardiogram
Component 3 = C4

Component 1 = 31500
Component 2 = Endotracheal intubation
Component 3 = C4
Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Insertion of intravenous line

Data Standards or Guidelines

Physicians' Current Procedural Terminology (AMA, 1997), *Nursing Interventions Classification* (McCloskey and Bulechek, 1995), *The Omaha System: Applications for Community Health Nursing* (Martin and Scheet, 1992), and *The Classification of Home Health Care Nursing: Diagnoses and Interventions* (Saba, 1992).

Other References

Health Level 7, Version 2.3 (HL7, 1996) and *E1238-94* (ASTM, 1994).

Definition

Date and time when procedure is ordered.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

DATE/TIME ED PROCEDURE STARTS

Definition

Date and time when procedure begins.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

For some procedures, such as intravenous line insertion, start times are not likely to be routinely recorded.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines:

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Date and time when procedure is completed or stopped.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

For some procedures, such as lumbar puncture, completion times are not likely to be routinely recorded.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

None.

6

ED PROCEDURE PRACTITIONER ID

Definition

Identifier for practitioner who performs procedure.

Uses

The identification of the practitioner is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (80).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed. This data element repeats within the ED Procedure Group if a single ED procedure practitioner has more than one identifier.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.

Example:

Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

6

ED PROCEDURE PRACTITIONER TYPE

PART OF THE ED PROCEDURE GROUP (6.01–6.08)

Definition

ED procedure practitioner's profession or occupation and specialty or subspecialty.

Uses

Identification of the practitioner type is needed for a complete clinical record. This information also is used for continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BS0113Y
Component 2 = Orthopedic surgeon
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Orthopedic surgeon

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

Definition

Date and time when diagnostic procedure result is reported.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

This data element is used to record the date and time when a diagnostic service (e.g., clinical chemistry, hematology) reports a result.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the ED Procedure Group repeats when more than one procedure is performed.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996) and *E1238-94* (ASTM, 1994).

Other References

None.

6

ED Diagnostic Procedure Result Type

Definition

Type of diagnostic procedure result reported (e.g., complete blood count, chest x-ray interpretation).

Uses

Specification of the result type is necessary for interpretation of the reported result.

Discussion

The Logical Observation Identifier Names and Codes (LOINC) Committee, coordinated at Regenstrief Institute for Health Care, Indianapolis, Indiana, is developing a coding system for a wide variety of laboratory and clinical data types. LOINC codes should be used to encode ED diagnostic procedure result types. When a LOINC code is not available, use a local code or text description.

Data Type (and Field Length)

CE — coded element (590).

Repetition

Yes; the ED Diagnostic Result Reporting Group repeats to record each result.

Field Values

Component 1 is the code indicating result type.
Component 2 is the result type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:

When using a LOINC code to report a hemoglobin (HGB) measurement enter data as follows:

Component 1 = 85018
Component 2 = HGB
Component 3 = LN

Text data also can be entered without an accompanying code, as follows:

Component 1 = ""
Component 2 = Dipstick ketones

Data Standards or Guidelines

Logical Observation Identifier Names and Codes (LOINC) Database: A Public Use Set of Codes and Names for Electronic Reporting of Clinical Laboratory Test Results (Forrey et al., 1996).

Other References

None.

---

*The ED Diagnostic Result Reporting Group includes data elements 6.09 and 6.10. A single iteration of this group is used to describe each diagnostic procedure result. Multiple iterations of the group can occur when a single diagnostic procedure, such as a test of serum electrolytes, yields more than one result (e.g., sodium, potassium, chloride, and carbon dioxide content).

Definition

Diagnostic procedure result.

Uses

The actual result or finding is used in patient care and has a variety of other uses including research and public health surveillance.

Discussion

The procedure result can be expressed as text, a number, or any other valid data type.

Data Type (and Field Length)

Variable data type (up to 65,536).

Repetition

Yes; the ED Diagnostic Result Reporting Group repeats to record each result.

Field Values

Depending on the observation, the procedure result may be entered using any valid *Health Level 7, Version 2.3* data type, including numeric (e.g., 8000 [complete blood count]) or text (e.g., right lower lobe infiltrate).

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996) and *E1238-94* (ASTM, 1994).

Other References

None.

6

ED MEDICATION DATA

S
E
C
T
I
O
N

7

7.01

Definition

Date and time when ED medication is ordered.

Uses

Data about the date and time of medication ordering are needed for direct patient care and continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

None.

7

---

*The ED Medication Group includes data elements 7.01–7.12. A single iteration of this group is used to report each medication that is ordered for administration to the patient during the ED visit. An order to change a medication's schedule or rate of administration requires an iteration of this group.

ED MEDICATION ORDERING PRACTITIONER ID

PART OF THE ED MEDICATION GROUP (7.01–7.12)

Definition

Identifier for practitioner who orders ED medication.

Uses

Identification of the practitioner who orders the ED medication is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (120).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2-10 and 14 are not used unless needed for local purposes.
Example:
Component 1 = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Profession or occupation and specialty or subspecialty of practitioner who orders ED medication.

Uses

The identification of the practitioner who orders the ED medication is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BE0004Y
Component 2 = Emergency physician
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Emergency physician

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

Definition

Medication administered during ED visit.

Uses

Documentation of an ED medication administration is needed for clinical care, quality management, reimbursement, administration, and clinical and health services research.

Discussion

Established systems that can be used to classify and code specific medications include the National Drug Codes (NDC) maintained by the Food and Drug Administration (FDA) and the World Health Organization Drug Record Codes. In addition, numerous local coding systems are in use.

Data Type (and Field Length)

CE — coded element (100).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 1 is the medication code.
Component 2 is the medication descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 0008-0581-02
Component 2 = Ativan injection 2 mg per ml
Component 3 = NDC

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Ativan

Data Standards or Guidelines

None.

Other References

National Drug Code Directory (FDA, 1996), *World Health Organization (WHO) Drug Dictionary* (WHO Collaborating Centre for International Drug Monitoring, 1996), and *E1744-95* (ASTM, 1995).

Definition

Dose of ED medication at each administration.

Uses

Documentation of an ED medication administration is needed for clinical care, quality management, reimbursement, administration, and clinical and health services research.

Discussion

None.

Data Type (and Field Length)

NM — numeric (20).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Enter a number greater than 0.

Example:

When 2 milligrams of a medication is administered, enter data as follows:

2

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

7

ED MEDICATION DOSE UNITS

Definition

Units for ED medication dose.

Uses

Documentation of an ED medication administration is needed for clinical care, quality management, reimbursement, administration, and clinical and health services research.

Discussion

This data element is not required if the ED Medication (data element 7.04) includes an expression of units (e.g., ampicillin 250 mg tablet).

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 1 is the code for units.
Component 2 is the units descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

In *Health Level 7, Version 2.3* (HL7, 1996) the default system for encoding units consists of the ISO (International Organization for Standards) units abbreviations plus ISO extensions (ISO+) (see *HL7,* Figure 7-7).

Example:
Component 1 = mg
Component 2 = milligrams
Component 3 = ISO+

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = mg/kg/hr

If none is applicable, enter "" in Component 1 and do not make entries in Components 2–6.

Data Standards or Guidelines

ISO 2955-83 Information Processing — Representation of SI and Other Units in Systems with Limited Character Sets (ISO, 1983).

Other References

Health Level 7, Version 2.3 (HL7, 1996).

Definition

Frequency and duration of ED medication administration.

Uses

Documentation of an ED medication administration is needed for clinical care, quality management, reimbursement, administration, and clinical and health services research.

Discussion

None.

Data Type (and Field Length)

TQ — timing/quantity (200).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 2 is the frequency of administration.
Component 3 is the duration of administration.
Component 8 is the text description of special instructions for medication use.
Component 1 is set to the default value of 1, and Components 4–7 and 9–10 are not used unless needed for local purposes.

Examples:

If a medication is administered only once, enter data as follows:
Component 2 = Once

If a medication is provided continuously for an indefinite duration, enter data as follows:
Component 2 = C

If a medication is administered every 30 minutes for 4 hours, enter data as follows:
Component 2 = Q30M
Component 3 = H4

Enter Unknown in any component, as necessary. For more information, see the definition of TQ in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

None.

ED MEDICATION ROUTE

PART OF THE ED MEDICATION GROUP (7.01–7.12)

Definition

Route by which ED medication is administered.

Uses

Documentation of an ED medication administration is needed for clinical care, quality management, reimbursement, administration, and clinical and health services research.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 1 is the code indicating administration route.
Component 2 is the administration route descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table of codes, specified in *HL7, Version 2.3* (HL7, 1996) is recommended for encoding the route of administration (see *HL7*, Table 0162):

Code	Description
AP	Apply externally
B	Buccal
DT	Dental
EP	Epidural
ET	Endotracheal tube
GTT	Gastronomy tube
GU	Genitourinary irrigant
IA	Intraarterial
IB	Intrabursal
IC	Intracardiac
ICV	Intracervical (uterus)
ID	Intradermal
IH	Inhalation
IHA	Intrahepatic artery
IM	Intramuscular
IMR	Immerse body part
IN	Intranasal

Code	Description
IO	Intraocular
IP	Intraperitoneal
IS	Intrasynovial
IT	Intrathecal
IU	Intrauterine
IV	Intravenous
MM	Mucous membrane
MTH	Mouth
NG	Nasogastric
NP	Nasal prongs
NS	Nasal
NT	Nasotracheal tube
OP	Ophthalmic
OT	Otic
OTH	Other/miscellaneous
PF	Perfusion
PO	Oral
PR	Rectal
RM	Rebreather mask
SC	Subcutaneous
SD	Soaked dressing
SL	Sublingual
TD	Transdermal
TL	Translingual
TP	Topical
TRA	Tracheostomy
UR	Urethral
VG	Vaginal
VM	Ventimask
WND	Wound

Example:
    Component 1 = IV
    Component 2 = Intravenous
    Component 3 = HL70162
Text data also can be entered without an accompanying code, as follows:
    Component 1 = ""
    Component 2 = Intravenous

Data Standards or Guidelines

None.

Other References

Health Level 7, Version 2.3 (HL7, 1996) and *E1744-95* (ASTM, 1995).

DATE/TIME ED MEDICATION STARTS

PART OF THE ED MEDICATION GROUP (7.01–7.12)

Definition

Date and time when ED medication administration begins.

Uses

Data about the date and time of medication administration are needed for direct patient care and continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

None.

Definition

Date and time when ED medication administration concludes.

Uses

Data about the date and time of medication administration are needed for direct patient care and continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

For some medication administrations (e.g., single administrations of an oral medication), completion times are not likely to be recorded.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

None.

7

Definition

Identifier for practitioner who administers ED medication.

Uses

Documentation of an ED medication administration is needed for clinical care, quality management, reimbursement, health care administration, and clinical and health services research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (200).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.
Example:
Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Profession or occupation and specialty or subspecialty of practitioner who administers ED medication.

Uses

Documentation of an ED medication administration is needed for clinical care, quality management, reimbursement, health care administration, and clinical and health services research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is ordered, this data element repeats with the ED Medication Group.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 163WE003N
Component 2 = Registered nurse, emergency
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Registered nurse, emergency

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

ED DISPOSITION AND DIAGNOSIS DATA

Definition

Date and time when ED practitioner's decision about patient's disposition is first recorded.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research. Data on the time of ED disposition decisions frequently are compared with data on the time of ED departures in studies of ED patient flow.

Discussion

For ED patients who are admitted to the hospital, discharged from the ED, or transferred to another facility, the disposition decision generally is recorded when the responsible ED practitioner issues an order or request. The recorded time of this order or request is the best available marker for when the disposition decision is actually reached.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document. For patient deaths, enter the date and time when the practitioner pronounced death. Date and time of ED disposition are not entered if the patient elopes or signs out against medical advice.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

8

8.02 ED DISPOSITION

Definition

Patient's anticipated location or status following ED visit.

Uses

This data element is needed to maintain continuity of care and for patient follow-up. Disposition data are used in health care administration and finance, quality management, and clinical, epidemiologic, and health services research.

Discussion

None.

Data Type (and Field Length)

IS — coded value for user-defined tables (3).

Repetition

No.

Field Values

The following table is recommended for encoding the disposition:

Code	Description
10	Discharged to home or self-care (routine discharge)
20	Transferred/discharged to another short-term general hospital
30	Transferred/discharged to skilled nursing facility
40	Transferred/discharged to intermediate care facility
50	Transferred/discharged to another type of institution
60	Transferred/discharged to home under care of a home IV drug therapy provider
70	Transferred/discharged to home under care of certified home care provider/program
80	Left without receiving medical advice against leaving (includes left without being seen, eloped)
90	Left after receiving medical advice against leaving (i.e., left AMA)
100	Placed in designated observation unit (not considered an inpatient hospital admission)
110	Admitted to hospital floor bed
120	Admitted to intermediate care/telemetry unit
130	Admitted to intensive care unit
140	Admitted to operating room
150	Died
888	Other
999	Unknown

Users may expand this table to meet local needs for more detailed data. For example, disposition categories 50, 80, 90, 110, and 130 could be expanded as follows:

Code	Description
51	Transferred/discharged to institution other than a prison or jail
52	Transferred/discharged to prison or jail
81	Left without advice, before triage and registration
82	Left without advice, after triage and before registration
83	Left without advice, after registration and before triage
84	Left without advice, after triage and registration
85	Left without advice, after primary assessment
91	Left with advice, before triage and registration
92	Left with advice, after triage and before registration
93	Left with advice, after registration and before triage
94	Left with advice, after triage and registration
95	Left with advice, after primary assessment
111	Admitted to nonisolation bed
112	Admitted to isolation bed
131	Admitted to medical intensive care unit
132	Admitted to cardiac care unit
133	Admitted to surgical intensive care unit
134	Admitted to burn unit
135	Admitted to neonatal intensive care unit
136	Admitted to pediatric intensive care unit

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Discharged home

Data Standards or Guidelines

None.

Other References

Uniform Bill-92 (National Uniform Billing Committee, 1996) and *E1744-95* (ASTM, 1995).

8

8.03   INPATIENT PRACTITIONER ID

Definition

Identifier for practitioner whose inpatient service ED patient is admitted to.

Uses

The identification of the inpatient attending physician or other practitioner is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

This data element applies to ED patients who are admitted or transferred to an acute care hospital. In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (60).

Repetition

Yes; if the inpatient practitioner has more than one identifier.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.

Example:

Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Profession or occupation and specialty or subspecialty of the practitioner whose inpatient service the ED patient is admitted to.

Uses

Identification of the inpatient practitioner type is needed for a complete clinical record. This information also is used for continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if the inpatient practitioner has more than one identifier.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BC0100Y
Component 2 = Cardiologist
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Cardiologist

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

8.05 FACILITY RECEIVING ED PATIENT

Definition

Identifier for health care facility to which patient is transferred or discharged at conclusion of ED visit.

Uses

Data identifying the facility that receives the ED patient upon transfer or discharge are needed for continuity of care, patient follow-up, health care administration and finance, and clinical, epidemiologic, and health services research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. Hospital subunits (e.g., psychiatric, rehabilitation) will receive separate NPIs. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

PL — person location (80).

Repetition

No.

Field Values

Component 4, an HD — hierarchic designator data type, is a facility identifier that has three subcomponents:
Subcomponent 1 is the name of the facility.
Subcomponent 2 is the facility identifier (including check digit).
Subcomponent 3 is the facility identifier type.
Components 1–3 and 5–15 are not used unless needed for local purposes.
Examples:
Component 4 —
Subcomponent 1 = Big Apple Hospital
Subcomponent 2 = 39748213
Subcomponent 3 = NPI
Component 4 —
Subcomponent 1 = Big Apple Hospital rehabilitation unit
Subcomponent 2 = 78254757
Subcomponent 3 = NPI
If no facility identifier is available, enter the name only:
Component 4 —
Subcomponent 1 = Big Apple Hospital
If unknown is applicable, enter Unknown in Component 1 and do not make entries in Components 2 and 3.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Intermediary Operations* (HCFA, 1996).

Other References

E1384-96 (ASTM, 1996) and *Health Level 7, Version 2.3* (HL7, 1996).

8

DATE/TIME PATIENT DEPARTS ED

Definition

Date and time when patient leaves ED.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research. Data on the time of ED departures frequently are compared with data on the time of disposition decisions in studies of ED patient flow.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

No.

Field Values

See the definition of TS in the Technical Notes at the end of this document. For patients who elope or sign out against medical advice, enter Unknown or record the date and time to the highest level of certainty (e.g., date but no time or date and hour but no minute). For patient deaths, enter the date and time when the body is sent to the morgue or funeral home.

Data Standards or Guidelines

None.

Other References

E1744-95 (ASTM, 1995).

Definition

Follow-up care needs of ED patient at discharge.

Uses

Data on the patient's needs for assistance are used to facilitate continuity of care and follow-up. These data also are used in quality-of-care monitoring and evaluation, health care administration, and clinical and health services research.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

No.

Field Values

Component 1 is the code for follow-up care assistance.
Component 2 is the descriptor for follow-up care assistance.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table is recommended for encoding follow-up care assistance. Enter data in this field only if the patient is discharged to home or self-care.

Code	Description
10	No follow-up care assistance necessary
20	Follow-up care assistance available or arranged before ED discharge
30	Follow-up care assistance arrangements pending
88	Other
99	Unknown

Example:
Component 1 = 10
Component 2 = No follow-up care assistance necessary
Component 3 = L

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Follow-up care assistance arrangements pending

Data Standards or Guidelines

None.

Other References

None.

8

REFERRAL AT ED DISPOSITION

PART OF THE ED REFERRAL GROUP (8.08–8.12)*

Definition

Arranged or recommended service for patient to be provided by practitioner, health care organization, or agency after ED visit.

Uses

Data on referrals are needed for continuity of care and patient follow-up. These data also are used in quality-of-care monitoring and evaluation, health care administration, and clinical and health services research.

Discussion

Until a standardized, comprehensive, and practical set of service descriptors is available and widely accepted, this data element must be adapted for local use. Transport services are excluded from this data element.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one referral is arranged or recommended, this data element repeats with the ED Referral Group.

Field Values

Component 1 is the code for the service type.
Component 2 is the service type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Home health services

Data Standards or Guidelines

None.

Other References

None.

---

*The ED Referral Group includes data elements 8.08–8.12. A single iteration of this group is used to report each referral that is arranged or recommended for the patient at ED disposition.

Definition

Name of physician or other practitioner to whom patient is referred for follow-up or consultation.

Uses

Identification of the practitioner to whom the patient is referred is needed for continuity of care, quality of care monitoring and evaluation, and health care administration. To protect practitioner privacy and confidentiality, access to this data element must be limited to authorized personnel.

Discussion

None.

Data Type (and Field Length)

XPN — extended person name (48).

Repetition

Yes; if more than one referral is arranged or recommended, this data element repeats with the ED Referral Group.

Field Values

Component 1 is the family name.
Component 2 is the given name.
Component 3 is the middle name or initial.
Component 4 is the suffix (e.g., Jr).
Component 5 is the prefix (e.g., Dr).
Component 6 is the degree.
Component 7 is the code for the name type (defaults to L, indicating legal name).
Example:
Component 1 = Smith
Component 2 = John
Component 3 = A
Component 5 = Dr

Enter Unknown in Component 1 if the practitioner's name is unknown. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 4-7 need not be made when they are not necessary.

Data Standards or Guidelines

None.

Other References

None.

ED Referral Practitioner ID

Definition

Identifier for practitioner to whom patient is referred for follow-up or consultation.

Uses

Identification of the practitioner to whom the patient is referred is needed for continuity of care, quality of care monitoring and evaluation, and health care administration.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (80).

Repetition

Yes; if more than one referral is arranged or recommended, this data element repeats with the ED Referral Group.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.

Example:
Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

ED Referral Practitioner Type

Definition

Profession or occupation and specialty or subspecialty of practitioner to whom ED patient is referred for follow-up or consultation.

Uses

Identification of the ED referral practitioner type is used for continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one referral is arranged or recommended, this data element repeats with the ED Referral Group.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Example:
Component 1 = 203BP0800Y
Component 2 = Psychiatrist
Component 3 = X12
When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Psychiatrist
If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

ED REFERRAL ORGANIZATION

Definition

Health care organization to which patient is referred for follow-up or consultation.

Uses

Identification of the health care organization to which the patient is referred is needed for continuity of care, quality of care monitoring and evaluation, and health care administration.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XON — extended composite name and ID number for organizations (90).

Repetition

Yes; if more than one referral is arranged or recommended, this data element repeats with the ED Referral Group.

Field Values

Component 1 is the organization name.
Component 3 is the organization identifier.
Component 4 is the check digit.
Component 5 is the code indicating the check digit scheme.
Component 7 is the code indicating the identifier type.
Components 2, 6, and 8 are not used unless needed for local purposes.

Example:
Component 1 = Redfern Medical Group
Component 3 = 4387241
Component 4 = 4
Component 5 = IBM Check
Component 7 = NPI

Enter "" in Component 1 if there is no organization and enter Unknown if the organization is not known. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2, 4–6, and 8 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Intermediary Operations* (HCFA, 1996).

Other References

E1384-96 (ASTM, 1996) and *Health Level 7, Version 2.3* (HL7, 1996).

Definition

Indicator of whether medication is prescribed, renewed, changed, or discontinued at ED discharge.

Uses

Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

ED practitioners routinely prescribe, renew, change, or discontinue a patient's medication at discharge, including medications available without a prescription.

Data Type (and Field Length)

ID — coded value for *HL7* tables (2).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Enter a 2-character code from Table 0119 in *Health Level 7, Version 2.3* (HL7, 1996). These codes include:

Code	Description
NW	New order
RF	Refill order request
XO	Change order request (i.e., an order to change the dose, schedule, or route of a current medication)
DC	Discontinue order request

Data Standards or Guidelines

Health Level 7, Version 2.3 (HL7, 1996).

Other References

None.

---

*The ED Discharge Medication Group includes data elements 8.13–8.22. A single iteration of this group is used to report each medication that is prescribed, renewed, changed, or discontinued when the patient is discharged from the ED.

ED DISCHARGE MEDICATION ORDERING PRACTITIONER ID

PART OF THE ED DISCHARGE MEDICATION GROUP (8.13–8.22)

Definition

Identifier for practitioner who issues ED discharge medication order.

Uses

The identification of the practitioner who issues an ED discharge medication order is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (120).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.
Example:
Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Profession or occupation and specialty or subspecialty of practitioner who issues ED discharge medication order.

Uses

The identification of the practitioner who issues an ED discharge medication order is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued this data element repeats with the ED Discharge Medication Group.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Example:
Component 1 = 203BE0004Y
Component 2 = Emergency physician
Component 3 = X12
When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Emergency physician
If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

ED Discharge Medication

Definition

Medication that is prescribed, renewed, changed, or discontinued at ED discharge.

Uses

Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

This data element includes medications that are available without a prescription. Established systems that can be used to classify and code specific medications include the National Drug Codes (NDC) maintained by the Food and Drug Administration (FDA) and the World Health Organization Drug Record Codes. In addition, numerous local coding systems are in use.

Data Type (and Field Length)

CE — coded element (100).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Component 1 is the medication code.
Component 2 is the medication descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Example:
Component 1 = 0047-0402-30
Component 2 = Ampicillin 250 mg tab
Component 3 = NDC
Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Penicillin

Data Standards or Guidelines

None.

Other References

National Drug Code Directory (FDA, 1996) and *World Health Organization (WHO) Drug Dictionary* (WHO Collaborating Centre for International Drug Monitoring, 1996).

8.17

Definition

ED discharge medication dose at each administration.

Uses

ED practitioners routinely prescribe medication at discharge. Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

None.

Data Type (and Field Length)

NM — numeric (20).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Enter a number greater than 0 for prescribed, changed, or renewed medications, such as 250 for ampicillin 250 mg.

Data Standards or Guidelines

None.

Other References

None.

ED DISCHARGE MEDICATION DOSE UNITS

Definition

Units for ED discharge medication dose.

Uses

Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Component 1 is the code for units.
Component 2 is the units descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

In *Health Level 7, Version 2.3* (HL7, 1996) the default system for encoding units consists of the ISO (International Organization for Standards) units abbreviations plus ISO extensions (ISO+) (see *HL7*, Figure 7-7).

Example:
Component 1 = mg
Component 2 = milligrams
Component 3 = ISO+

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = mg/kg

If none is applicable, enter "" in Component 1 and do not make entries in Components 2–6.

Data Standards or Guidelines

ISO 2955-83 Information Processing — Representation of SI and Other Units in Systems with Limited Character Sets (ISO, 1983).

Other References

Health Level 7, Version 2.3 (HL7, 1996).

ED DISCHARGE MEDICATION SCHEDULE

PART OF THE ED DISCHARGE MEDICATION GROUP (8.13–8.22)

Definition

Frequency and duration of ED discharge medication administration.

Uses

ED practitioners routinely prescribe medication at discharge. Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

None.

Data Type (and Field Length)

TQ — timing/quantity (200).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Component 2 is the frequency of administration.
Component 3 is the duration of administration.
Component 8 is the text description of special instructions for medication use.
Component 1 is set to the default value of 1, and Components 4–7 and 9–10 are not used unless needed for local purposes.

For example, if a medication is to be administered every 6 hours for 10 days (without special instructions), enter data in the following manner:
Component 2 = Q6H
Component 3 = D10

Data Standards or Guidelines

None.

Other References

None.

8

ED Discharge Medication Route

Definition

Route by which ED discharge medication is to be administered.

Uses

Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

None.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Component 1 is the code for the administration route.
Component 2 is the administration route descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

The following table of codes, specified in *Health Level 7, Version 2.3* (HL7, 1996) is recommended for encoding the route of administration (see *HL7*, Table 0162):

Code	Description
AP	Apply externally
B	Buccal
DT	Dental
EP	Epidural
ET	Endotracheal tube
GTT	Gastronomy tube
GU	Genitourinary irrigant
IA	Intraarterial
IB	Intrabursal
IC	Intracardiac
ICV	Intracervical (uterus)
ID	Intradermal
IH	Inhalation
IHA	Intrahepatic artery
IM	Intramuscular
IMR	Immerse body part
IN	Intranasal

Code	Description
IO	Intraocular
IP	Intraperitoneal
IS	Intrasynovial
IT	Intrathecal
IU	Intrauterine
IV	Intravenous
MM	Mucous membrane
MTH	Mouth
NG	Nasogastric
NP	Nasal prongs
NS	Nasal
NT	Nasotracheal tube
OP	Ophthalmic
OT	Otic
OTH	Other/miscellaneous
PF	Perfusion
PO	Oral
PR	Rectal
RM	Rebreather mask
SC	Subcutaneous
SD	Soaked dressing
SL	Sublingual
TD	Transdermal
TL	Translingual
TP	Topical
TRA	Tracheostomy
UR	Urethral
VG	Vaginal
VM	Ventimask
WND	Wound

Example:
   Component 1 = PO
   Component 2 = Oral
   Component 3 = HL70162

Text data also can be entered without an accompanying code, as follows:
   Component 1 = ""
   Component 2 = Oral

Data Standards or Guidelines

None.

Other References

Health Level 7, Version 2.3 (HL7, 1996).

AMOUNT OF ED DISCHARGE MEDICATION TO BE DISPENSED

PART OF THE ED DISCHARGE MEDICATION GROUP (8.13–8.22)

Definition

Amount of ED discharge medication to be dispensed when prescription is filled.

Uses

ED practitioners routinely prescribe medication at discharge. Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

None.

Data Type (and Field Length)

NM — numeric (20).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Enter a number greater than 0, such as 40 when the prescription calls for 40 tablets to be dispensed.

Data Standards or Guidelines

None.

Other References

None.

Definition

Number of times prescription for ED discharge medication can be refilled.

Uses

ED practitioners routinely prescribe medication at discharge. Data on planned management of the ED patient's health problems are needed for communication and continuity of care. These data are useful for ED administration, quality-of-care monitoring and evaluation, and research.

Discussion

None.

Data Type (and Field Length)

NM — numeric (3).

Repetition

Yes; if more than one medication is prescribed, renewed, changed, or discontinued, this data element repeats with the ED Discharge Medication Group.

Field Values

Enter an integer equal to or greater than 0.

Data Standards or Guidelines

None.

Other References

None.

8

ED DISPOSITION DIAGNOSIS DESCRIPTION

PART OF THE ED DISPOSITION DIAGNOSIS GROUP (8.23–8.26)*

Definition

Practitioner's description of condition or problem for which services were provided during patient's ED visit, recorded at time of disposition.

Uses

These data are needed for continuity of care, and they are useful for quality-of-care monitoring, public health surveillance, and clinical, health services, and epidemiologic research.

Discussion

A practitioner's reported diagnosis is the basis for diagnostic coding and classification. In most instances, a clinical description will provide more detail than a diagnostic code and its associated rubric. Practitioners and other authorized data users may need to read unaltered text or search it electronically for words or phrases of interest.

Data Type (and Field Length)

ST — string data (400).

Repetition

Yes; if more than one disposition diagnosis is made, this data element repeats with the ED Disposition Diagnosis Group.

Field Values

Enter free-form text.

Examples:
Acute pancreatitis probably due to gall bladder stones.
Closed head injury with coma due to fall from height.

Data Standards or Guidelines

None.

Other References

None.

---

*The ED Disposition Diagnosis Group includes data elements 8.23–8.26. A single iteration of this group is used to report each disposition diagnosis.

Definition

Code assigned to ED disposition diagnosis.

Uses

These data are used in reimbursement and have value for health care administration and clinical, epidemiologic, and health services research.

Discussion

The predominant coding and classification system for morbidity remains the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)* (U.S. Department of Health and Human Services [USDHHS], 1995). *ICD-9-CM* codes are used for statistical data reporting, aggregate data analysis, and submission of claims for reimbursement. The North American Nursing Diagnosis Association (NANDA) classification and coding system is used for nursing diagnoses and is recommended by the Emergency Nurses Association Emergency Nursing Uniform Data Set Task Force because of its relevance to ED patients (NANDA, 1997). The nursing diagnosis is a clinical judgment about individual, family, or community responses to actual or potential health problems or life processes.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one disposition diagnosis is made, this data element repeats with the ED Disposition Diagnosis Group.

Field Values

Component 1 is the diagnosis code.
Component 2 is the diagnosis descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 410.41
Component 2 = Acute inferior wall myocardial infarction, initial episode of care
Component 3 = IC9

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Cholecystitis

Data Standards or Guidelines

ICD-9-CM (USDHHS, 1995), *The NANDA Nursing Diagnosis: Definitions and Classification 1997-1998* (NANDA, 1997), *Systematized Nomenclature of Human and Veterinary Medicine — SNOMED International* (Cote et al., 1993), and *Fracture and Dislocation Compendium* (Orthopedic Trauma Association, 1995).

Other References

None.

8

ED DISPOSITION DIAGNOSIS PRACTITIONER ID

Definition

Identifier for practitioner who makes ED disposition diagnosis.

Uses

Identification of the practitioner is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (60).

Repetition

Yes; if more than one disposition diagnosis is made, this data element repeats with the ED Disposition Diagnosis Group, and if the practitioner has more than one identifier, this data element repeats within the ED Disposition Diagnosis Group.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.

Example:
Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

8

ED DISPOSITION DIAGNOSIS PRACTITIONER TYPE

Definition

Profession or occupation and specialty or subspecialty of practitioner who makes ED disposition diagnosis.

Uses

Identification of the practitioner type is needed for a complete clinical record. This information also is used for continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if more than one disposition diagnosis is made, this data element repeats with the ED Disposition Diagnosis Group.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BE0004Y
Component 2 = Emergency physician
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Emergency physician

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

PART OF THE ED SERVICE LEVEL GROUP (8.27–8.29)*

Definition

Extent of services provided by ED physician, nurse, or other practitioner during patient's ED visit.

Uses

Data characterizing the level of ED physician services are used in claims processing and are applicable to ED planning and administration and health services research. Data describing the intensity of services provided by other ED personnel are used in planning, administration, and research, but are not part of claims processing.

Discussion

The *Physicians' Current Procedural Terminology (CPT)* evaluation and management (E/M) codes are used to document physician services other than procedures (American Medical Association [AMA], 1997). The key components of an E/M service level code assignment are history, physical examination, and medical decision making. Nursing intensity is an essential data element in the Nursing Minimum Data Set (Werley and Lang, 1988); however, further work is needed to develop systems for measuring nursing intensity.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; if the service level of more than one practitioner (e.g., physician, nurse) is reported, the ED Service Level Group repeats.

Field Values

Component 1 is the code for service level.
Component 2 is the service level descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Example:
Component 1 = 99281
Component 2 = ED visit with problem-focused history, problem-focused examination, and straightforward medical decision making
Component 3 = C4

Data Standards or Guidelines

Physicians' Current Procedural Terminology (AMA, 1997).

Other References

Identification of the Nursing Minimum Data Set (Werley and Lang, 1988).

---

*The ED Service Level Group includes data elements 8.27–8.29. A single iteration of this group is used to report the service level of a specified practitioner category (e.g., physician evaluation and management services, nursing service intensity).

8

ED SERVICE LEVEL PRACTITIONER ID

PART OF THE ED SERVICE LEVEL GROUP (8.27–8.29)

Definition

Identifier for ED practitioner whose service level is reported.

Uses

Identification of the practitioner is needed for direct patient care, continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (80).

Repetition

Yes; this data element repeats with the ED Service Level Group if the service level of more than one practitioner category is reported, and it repeats within the group if more than one practitioner's services are included in the service level reported for a specified practitioner category.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.

Example:
Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

8

ED SERVICE LEVEL PRACTITIONER TYPE

Definition

Profession or occupation and specialty or subspecialty of ED practitioner whose service level is reported.

Uses

Identification of the practitioner type is needed for a complete clinical record. This information also is used for continuity of care, quality-of-care monitoring, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's (HCFA) implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; this data element repeats with the ED Service Level Group if the service level of more than one practitioner category is reported, and it repeats within the group if more than one practitioner's services are included in the service level reported for a specified practitioner category.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 203BE0004Y
Component 2 = Emergency physician
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Emergency physician

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

8

PATIENT PROBLEM ASSESSED IN ED OUTCOME OBSERVATION

PART OF THE ED OUTCOME OBSERVATION GROUP (8.30–8.34)*

Definition

Patient's complaint or condition for which outcome is observed.

Uses

Specification of the patient's problem is necessary for interpreting the ED Outcome Observation data element.

Discussion

Because a variety of problems (e.g., a symptom, physical sign, abnormal laboratory finding, or diagnosed condition) have measurable outcomes, a variety of coding systems is needed. Users can select from available national or international coding systems (e.g., *International Classification of Diseases, 9th Revision, Clinical Modification,* North American Nursing Diagnosis Association [NANDA] classification and coding system, and the *Logical Observation Identifiers Names and Codes [LOINC] Database*), locally developed codes, or descriptive text entries to specify patient problems. Additional work is needed to choose or develop coding systems to provide comprehensive coverage of all patient problems that are assessed and treated in the ED.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; the ED Outcome Observation Group repeats to record each outcome.

Field Values

Component 1 is the code for the patient problem.
Component 2 is the patient problem descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Headache

Data Standards or Guidelines

None.

Other References

International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM) (U.S. Department of Health and Human Services, 1995), *The NANDA Nursing Diagnosis: Definitions and Classification 1997-1998* (NANDA, 1997), and *Logical Observation Identifier Names and Codes (LOINC) Database: A Public Use Set of Codes and Names for Electronic Reporting of Clinical Laboratory Test Results* (Forrey et al., 1996).

---

*The ED Outcome Observation Group includes data elements 8.30–8.34. A single iteration of this group is used to report each outcome that is assessed.

Definition

Change in patient's specified health problem as assessed by practitioner during ED visit or at follow-up.

Uses

Outcome data are needed for individual patient care, quality-of-care monitoring and evaluation, public health surveillance, and epidemiologic research.

Discussion

Interest in obtaining standardized data on ED patient outcomes is widespread, but methods of gathering and analyzing these data are underdeveloped. More research is needed to define problem-specific outcome measures that are valid, reliable, and sensitive to health status changes that occur during the ED visit and afterwards. Additional research is needed to determine the extent to which measurable changes in health status during and after the ED visit are related to ED care. Further work is required to incorporate outcome measurements into routine ED practice. Until a valid, reliable, and practical set of outcome measures is available and widely accepted, this data element should be used for locally defined outcome observation codes. An outcome can be assessed at any time during or following the ED visit. Many outcomes are likely to be assessed at the time of ED disposition. For nursing outcomes, the Emergency Nurses Association Emergency Nursing Uniform Data Task Force recommends entering Resolved, Stabilized, or Not resolved for each nursing diagnosis.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; the ED Outcome Observation Group repeats to record each outcome.

Field Values

Component 1 is the outcome observation code.
Component 2 is the outcome observation descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Immediate relief of headache pain with ED treatment

Data Standards or Guidelines

None.

Other References

None.

DATE/TIME OF
ED OUTCOME OBSERVATION

PART OF THE ED OUTCOME OBSERVATION GROUP (8.30–8.34)

Definition

Date and time when practitioner's outcome observation is made.

Uses

Data about the date and time of health services delivery are needed to maintain continuity of care for the ED patient and for aggregate use in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

None.

Data Type (and Field Length)

TS — time stamp (26).

Repetition

Yes; the ED Outcome Observation Group repeats to record each outcome.

Field Values

See the definition of TS in the Technical Notes at the end of this document.

Data Standards or Guidelines

None.

Other References

None.

Definition

Identifier for practitioner who assesses ED patient's outcome.

Uses

Identification of the practitioner is needed for direct patient care, continuity of care, quality-of-care monitoring and evaluation, health care administration, reimbursement, and research.

Discussion

In 1998, the Health Care Financing Administration (HCFA) plans to begin issuing a National Provider Identifier (NPI) to all individual practitioners and organizations that provide health care. The NPI consists of two parts: a 7-position alphanumeric identifier and a 1-position numeric check digit. A locally assigned identifier may be entered until the NPI is issued. To protect confidentiality, disclosure of practitioner- or organization-specific data must be limited to authorized personnel.

Data Type (and Field Length)

XCN — extended composite ID number and name for persons (80).

Repetition

Yes; the ED Outcome Observation Group repeats to record each outcome.

Field Values

Component 1 is the practitioner identifier.
Component 11 is the check digit.
Component 12 is the code indicating the check digit scheme.
Component 13 is the code indicating the identifier type.
Components 2–10 and 14 are not used unless needed for local purposes.

Example:
Component 1   = 4672093
Component 11 = 5
Component 12 = IBM Check
Component 13 = NPI

Enter "" in Component 1 if the practitioner has no identifier, and enter Unknown if it is not known whether the practitioner has an identifier. Entries in all other components can be "" (none) or Unknown when appropriate, and entries in Components 2–10 and 14 need not be made when they are not necessary.

Data Standards or Guidelines

National Provider Identifier/National Provider File (HCFA, 1995) and *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations* (HCFA, 1996).

Other References

None.

Definition

Profession or occupation and specialty or subspecialty of practitioner who assesses ED patient's outcome.

Uses

Identification of the practitioner type is needed for a complete clinical record. This information also is used for continuity of care, quality-of-care monitoring and evaluation, health care administration, reimbursement, and research.

Discussion

The Insurance Subcommittee of the Accredited Standards Committee X12 is developing a provider taxonomy in conjunction with the Health Care Financing Administration's implementation of the National Provider System (Accredited Standards Committee X12, 1997). The taxonomy classifies practitioners by their occupation or service group and their specialty. The taxonomy permits further specification within specialties, such as subspecialty or age focus (e.g., adolescents). Until the taxonomy is implemented, a local system may be used to encode practitioner type.

Data Type (and Field Length)

CE — coded element (60).

Repetition

Yes; the ED Outcome Observation Group repeats to record each outcome.

Field Values

Component 1 is the code indicating the practitioner type.
Component 2 is the practitioner type descriptor.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Example:
Component 1 = 163WE0003N
Component 2 = Registered nurse, emergency
Component 3 = X12

When no coding system exists, enter data in the following manner:
Component 1 = ""
Component 2 = Registered nurse, emergency

If the practitioner type is unknown, enter data in the following manner:
Component 1 = Unknown

Data Standards or Guidelines

None.

Other References

Accredited Standards Committee X12 Provider Taxonomy, Version 2.0 (ASC X12, 1997).

ED Patient Satisfaction Report Type

Definition

Aspect of ED care for which patient satisfaction is reported.

Uses

Specification of the type of patient satisfaction report is necessary for interpreting the ED Patient Satisfaction Report data element.

Discussion

Few ED patient records include data on patient satisfaction. However, in many ED settings, these data can be obtained as a by-product of patient satisfaction questionnaires or interviews administered to the patient or a responsible informant following the ED visit. These instruments are used to assess patients' satisfaction with various aspects of ED care, such as the technical quality of care, interpersonal aspects of care, accessibility and availability of care, and physical setting comfort. Many instruments designed to measure patient satisfaction have been developed, but no consensus exists regarding the dimensions of care that should be measured or how to measure them. Until a standard system for coding the type of patient satisfaction is available and widely accepted, this data element must be adapted for local use. One option is to develop a set of descriptors of the type of patient satisfaction report for use in data entry.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; the ED Patient Satisfaction Report Group repeats to record the patient's reported satisfaction with each specified dimension of ED care.

Field Values

Component 1 is the code for the type of patient satisfaction report.
Component 2 is the descriptor of the patient satisfaction report type.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.
Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Waiting time before seen

Data Standards or Guidelines

None.

Other References

None.

---

*The ED Patient Satisfaction Group includes data elements 8.35 and 8.36. A single iteration of this group is used to report each dimension of patient satisfaction that is assessed.

8.36 ED PATIENT SATISFACTION REPORT

PART OF THE ED PATIENT SATISFACTION GROUP (8.35 AND 8.36)

Definition

Patient's reported satisfaction with specified aspect of ED care.

Uses

Data on patient satisfaction are used in ED administration, quality-of-care monitoring and evaluation, and health services research.

Discussion

Few ED patient records include data on patient satisfaction. However, in many ED settings, these data can be obtained as a by-product of patient satisfaction questionnaires or interviews administered to the patient or a responsible informant following the ED visit. These instruments are used to assess patients' satisfaction with various aspects of ED care, such as the technical quality of care, interpersonal aspects of care, accessibility and availability of care, and physical setting comfort. Many instruments designed to measure patient satisfaction have been developed, but no consensus exists regarding the dimensions of care that should be measured or how to measure them. Until a valid, reliable, and practical set of patient satisfaction measures is available and widely accepted, this data element should be used for locally selected patient satisfaction reporting codes. One option is to enter a text description of the patient's reported satisfaction with the specified aspect of care.

Data Type (and Field Length)

CE — coded element (200).

Repetition

Yes; the Patient Satisfaction Report Group repeats to record the patient's reported satisfaction with each specified dimension of ED care.

Field Values

Component 1 is the code for the patient satisfaction report.
Component 2 is the descriptor of the patient satisfaction report.
Component 3 is the coding system identifier.
Components 4–6 can be used for an alternate code, descriptor, and coding system identifier.

Text data also can be entered without an accompanying code, as follows:
Component 1 = ""
Component 2 = Long waiting time before seen by physician

Data Standards or Guidelines

None.

Other References

None.

TECHNICAL NOTES

These notes provide technical information about how the data elements in *DEEDS* conform to the data types defined in *Health Level 7, Version 2.3* (HL7, 1996); conventions for addressing missing, unknown, and null data values; and recommendations for dealing with data elements or components of data elements that do not apply to certain patients. For more comprehensive information about the *HL7* data types and the technical terms used in these notes, please refer to *HL7, Version 2.3*.

Data Types Used in *DEEDS*

CE	—	coded element
CX	—	extended composite ID with check digit
EI	—	entity identifier
HD	—	hierarchic designator
ID	—	coded value for *HL7* tables
IS	—	coded value for user-defined tables
MO	—	money
NM	—	numeric
PL	—	person location
ST	—	string data
TQ	—	timing/quantity
TS	—	time stamp
XAD	—	extended address
XCN	—	extended composite ID number and name for persons
XON	—	extended composite name and ID number for organizations
XPN	—	extended person name
XTN	—	extended telecommunication number

Symbols

In the data type descriptions that follow, these symbols are used to denote structural features of the data types or to indicate how entries are made in data fields.

< > Angle brackets demarcate each component of a multicomponent data type. For example, the two components of the MO data type are represented as <quantity> and <denomination>.

( ) Parentheses enclose the abbreviation of component data types. For example, in the MO data type description, (NM) specifies that the <quantity (NM)> component is a numeric data type.

^ The carat separates adjacent components of a multicomponent data type. For example, the MO data type is represented as <quantity (NM)>^<denomination (ID)>.

[ ] Square brackets specify a part of a component in which data entry is optional. For example, the [SS] in the TS — time stamp data type indicates that entering seconds is optional.

~ The tilde separates multiple occurrences of a single component. For example, in the family name component of the XPN data type, Rodriguez~Garcia indicates that the person has a compound name.

"" Double quotes represent null values in alphanumeric fields. For example, the entry of "" in the middle name component of an XPN data type field indicates that the person has no middle name or initial.

CE — coded element

Components:

<identifier (ST)>^<text (ST)>^<name of coding system (ST)>^

<alternate identifier (ST)>^<alternate text (ST)>^<name of alternate coding system (ST)>

This data type is composed of two parallel triplets, each of which specifies a coded identifier, a corresponding text descriptor, and a designation for the coding system from which the coded identifier is taken. The CE data type permits use of different coding systems to encode the same data. Components 1–3 comprise a triplet for the first code, and Components 4–6 comprise a triplet for the alternate code. When a code from a locally developed coding system is entered in Component 1 or 4, then L is recommended for entry in Component 3 or 6 to designate a local coding system. An example of a chief complaint entry using a local coding system is:

KO1^chest pain^L

Text may be used without an accompanying identifier and name of coding system in the absence of an available coding system, in which case the text is entered in Component 2. An example of a chief complaint entry without a coding system is:

""^chest pain

An entry "" or Unknown in Component 1, without entries in other components, indicates that the value for the entire data element is null or unknown.

CX — extended composite ID with check digit

Components:

<ID (ST)>^<check digit (ST)>^

<code identifying the check digit scheme employed(ID)>^

<assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>

This data type is used for certain fields that commonly contain check digits (e.g., internal facility patient identifier). Component 1 contains an alphanumeric identifier. The check digit entered in Component 2 is an integral part of the identifier but is not included in Component 1. Component 3 identifies the algorithm used to generate the check digit. Component 4, <assigning authority>, is the unique name of the system that created the identifier. Component 5, <identifier type code>, is a code for the identifier type, such as MR for medical record number (see Table 0203 in *HL7, Version 2.3*). Component 6, <assigning facility>, is the place or location where the identifier was first assigned to the patient (e.g., University Hospital).

EI — entity identifier

Components:

<entity identifier (ST)>^<namespace ID (IS)>^<universal ID (ST)>^

<universal ID type (ID)>

Component 1, <entity identifier>, is used in *DEEDS* as an authorization identifier, and Components 2-4 are not used unless needed for local purposes. Components 2-4 are equivalent to the HD — hierarchic designator data type.

HD — hierarchic designator

Components:

   <namespace ID (IS)>^<universal ID (ST)>^<universal ID type (ID)>

The HD data type is used only as a part of the CX, EI, PL, XCN, and XON data types. In *DEEDS*, the HD data type is used as a facility identifier. Component 1, <namespace ID>, is a locally defined name that is consistent with the IS data type. Component 2, <universal ID>, is an identifier formatted in accordance with the system defined by Component 3, <universal ID type>. If data are entered in Component 1, data entry in Components 2 and 3 is optional. If data are not entered in Component 1, then Components 2 and 3 must be used together. Component 3 is used to designate the type of identifier entered in Component 2. See *HL7* Table 0301 for identifier types. Among the types listed is the identifier L, which is used in *DEEDS* to designate a locally defined identifier system.

ID — coded value for HL7 tables

Entries into fields of this data type follow the formatting rules of an ST field and are drawn from tables that are defined within *HL7*, such as medication order control codes used in the *DEEDS* ED Discharge Medication Order Type data element.

IS — coded value for user-defined tables

Entries into fields of this data type follow the formatting rules of an ST field and are drawn from tables that are defined by the user. For example, a locally defined table for sex could be:

Entry	Description
M	Male
F	Female
U	Unknown

MO — money

Components:

   <quantity (NM)>^<denomination (ID)>

Component 1 is a monetary amount, and Component 2 is a currency type. Currency types are coded from *ISO 4217-90 Currency and Fund Codes* (International Organization for Standardization, 1990), in which the code for the U.S. dollar is USD.

NM — numeric

An entry into a field of this data type is a number represented by a series of ASCII numeric characters consisting of an optional leading sign (+ or -), one or more digits, and an optional decimal point. In the absence of a + or - sign, the number is assumed to be positive. Leading zeros, or trailing zeros after a decimal point, are not meaningful. The only nonnumeric characters allowed are the optional leading sign and decimal point.

PL — person location

Components:

    <point of care (IS)>^<room (IS)>^<bed (IS)>^<facility (HD)>^<location status (IS)>^

    <person location type (IS)>^<building (IS)>^<floor (IS)>^<location description (ST)>

In *DEEDS*, only Component 4, <facility>, is used, and it follows the formatting rules for the HD — hierarchic designator data type.

ST — string data

Entries into a field of this data type are left-justified alphanumeric data, with trailing blanks optional.

TQ — timing/quantity

Components:

    <quantity (CQ)>^<interval (CM)>^<duration (ST)>^<start date/time (TS)>^

    <end date/time (TS)>^<priority (ST)>^<condition (ST)>^<text (TX)>^

    <conjunction (ST)>^<order sequencing (CM)>

The TQ data type is used to describe when a service is to be performed and how frequently. Only Components 1-3 are used in *DEEDS*. Component 1, <quantity>, is a distinct *HL7* data type, CQ — composite quantity with units, comprised of two subcomponents, quantity (NM) and units (CE). In *DEEDS*, the quantity subcomponent is set to the default value of 1, indicating one administration of the specified medication dose. The units subcomponent is not used unless Unknown is entered in this field to indicate that the medication schedule is not known.

Component 2, <interval>, is a distinct *HL7* data type, CM — composite data type, that specifies the frequency with which medication is administered. The following excerpts from *HL7* Table 0401 provide examples of data entry for Component 2:

Entry	Description
Q<integer>H	Every <integer> hours
Q<integer>D	Every <integer> days
BID	Twice a day
TID	Three times a day
QID	Four time a day
<integer>ID	<integer> times per day (for 5 or more times a day)
QAM	Once in the morning
QOD	Every other day (same as Q2D)
QHS	Every day before the hour of sleep
QPM	In the evening
PRN	Use as needed
PRNxxx	Use as needed, where xxx is a frequency code (e.g., PRNQ6H)

Component 3, <duration>, specifies how long medication administration is to continue after it is started. The following excerpts from *HL7* section 4.4.3 provide examples of data entry for Component 3:

Entry	Description
D<integer>	<integer> days
W<integer>	<integer> weeks
L<integer>	<integer> months
INDEF	Indefinitely (default value)

TS — time stamp

Form:

   YYYY[MM[DD[HHMM[SS[.S[S[S[S]]]]]]]][+/-ZZZZ]

A data element of this type is string data that contains the date and time of an event. YYYY is the year, MM is the month, and DD is the day of the month. The time, HHMM, is based on a 24- hour clock in which midnight is 0000 and 2359 is 11:59 pm, and +/- ZZZZ is the offset from Greenwich Mean Time (for example -0500 is Eastern Daylight Time, and -0600 is Eastern Standard Time). If the optional +/-ZZZZ is missing, local time is assumed.

A TS data field should be left blank when the informant is not asked about the time of an event or the information is not recorded (missing data). As a *DEEDS* convention (not an *HL7* standard), 99 can be used to indicate that the informant does not know:

Entry	Description
Leave blank	Date/time not asked or not recorded
99	Date/time asked and unknown
1996	Year known; remainder of date/time not asked or not recorded
199699	Year known, nothing else known
199608	Year and month known; remainder of date/time not asked or not recorded
19960899	Year and month known; nothing else known

Examples:

199608011600-0500	A complete date/time indicating EDT
199608011600-0600	A complete date/time indicating EST

For some events (e.g., onset of illness or injury), the exact date or time may be unavailable and an estimate is preferable to leaving the date/time blank or entering 99. For example, if the event is estimated to have occurred 4 days ago (assuming that today's date is June 6, 1997), then 1997060299 would be entered. If the event is estimated to have occurred about 3 months ago, then 19970399 would be entered.

XAD — extended address

Components:

<street address (ST)>^<other designation (ST)>^<city (ST)>^<state or province (ST)>^

<zip or postal code (ST)>^<country (ID)>^<address type (ID)>^

<other geographic designation (ST)>^<county/parish code (IS)>^<census tract (IS)>

Component 1, <street address>, contains the street address, rural route designation, or post office box. Component 2, <other designation>, qualifies the address (e.g., Apt 1). Component 3, <city>, is the city name, where appropriate. Component 4, <state or province>, is represented by the U.S. Postal Service code. Component 5, <zip or postal code>, takes the form 99999[-9999] for a zip code or has 6 alphanumeric characters for a Canadian postal code. Component 6, <country code>, is assumed to be USA if no entry is made. Component 7, <address type>, is coded as follows:

Entry	Description
C	Current or temporary
P	Permanent
M	Mailing
B	Business
O	Office
H	Home
F	Country of origin

Component 8, <other geographic designation>, is a user's choice that could include such designations as catchment area, EMS region, and health services area. Component 9, <county/parish code>, represents the county or county equivalent in which the specified address is located (see *HL7* Table 0289 — County/Parish). Component 10, <census tract>, is a code that represents the census tract (or enumeration district) in which the specified address is located (see *HL7* Table 0288 — Census Tract).

Example:

1234 Easy Street^Suite 123^San Francisco^CA^95123^USA^B^^SF

XCN — extended composite ID number and name for persons

Components:

<ID (ST)>^<family name (ST)>^<given name (ST)>^<middle initial or name (ST)>^

<suffix (ST)>^<prefix (ST)>^<degree (ST)><source table (IS)>^

<assigning authority (HD)>^<name type (ID)>^<identifier check digit (ST)>^

<code identifying check digit scheme employed (ID)>^<identifier type code (IS)>^

<assigning facility (HD)>

Only Components 1 and 13 are used in *DEEDS*. Component 1, <ID>, contains an alphanumeric identifier, and Component 13, <identifier type code>, is a code for the type of identifier, such as MR for medical record number. Refer to *HL7* Table 0203 for other identifier types.

XON — extended composite name and ID number for organizations

Components:

    <organization name (ST)>^<organization name type code (IS)>^<ID number (NM)>^

    <check digit (NM)>^<code identifying the check digit scheme employed (ID)>^

    <assigning authority (HD)>^<identifier type code (IS)>^<assigning facility (HD)>

Component 1, <organization name>, is the name of the specified organization, and Component 2, <organization name type code>, is a code that represents the type of name (see *HL7* Table 0204). Components 4–8 are equivalent to Components 2–6 of the CX data type, except that the check digit in the XON is restricted to the NM data type.

XPN — extended person name

Components:

    <family name (ST)>^<given name (ST)>^<middle initial or name (ST)>^<suffix (ST)>^

    <prefix (ST)>^<degree (ST)>^<name type code (ID)>

Last name or surname is equivalent to <family name>, and first name is equivalent to <given name>. Component 4, <suffix>, refers to hereditary order, such as Jr, Sr, III or IV. Component 5, <prefix>, refers to title, such as Mr or Mrs. Component 6, <degree>, refers to an academic degree, such as PhD. Component 7, <name type code>, is defined by *HL7* Table 0200 as follows:

Entry	Description
A	Alias name
L	Legal name
D	Display name
M	Maiden name
C	Adopted name

Examples:

Jones^Ralph^""^^Dr^MD	No middle initial
Unknown	Name not known
^John John	Last name missing
Smith^Unknown	Given name unknown
Rodriguez~Garcia^Alvaro	Compound family name
Omalley^Mary~Margaret^A^^Mrs	Compound given name

XTN — extended telecommunication number

Components:

    < * >^<telecommunication use code (ID)>^

    <telecommunication equipment type (ID)>^<e-mail address (ST)>^

    <country code (NM)>^<area/city code (NM)>^<phone number (NM)>^

    <extension (NM)>^<any text (ST)>

---

*In *DEEDS,* Component 1 is not used except to indicate that there is no telecommunication number or that the number is not known (Component 1 is a TN data type retained in *HL7, Version 2.3* for backward compatibility). Components 2–9 are used to record telecommunication information.

Component 2, <telecommunication use code>, is a code that refers to a specific use of a telecommunication number, as follows:

Entry	Description
PRN	Primary residence number
ORN	Other residence number
WPM	Work number
VHN	Vacation home number
ASN	Answering service number
EMR	Emergency number
NET	Network (e-mail) address
BPN	Beeper number

Component 3, <telecommunication equipment type>, is a code that refers to a type of telecommunication equipment, as follows:

Entry	Description
PH	Telephone
FX	Fax
MD	Modem
CP	Cellular phone
BP	Beeper
Internet	Internet address (Use only if telecommunication use code is NET.)
X.400	X.400 e-mail address (Use only if telecommunication use code is NET.)

Use Component 4 to record an e-mail address. Component 5 is an optional 3-digit country code. Component 6, <area/city code>, is optional, with data entered in the following form:

   (999)

Component 7, <phone number>, is the only required component, with data entered in the following form:

   999-9999

Component 8, <extension>, is an optional telephone number extension. Component 9, <any text>, is an optional free-form comment limited in length to the number of characters remaining in the data field after all other information has been entered.

When the person or organization has no telecommunication number, enter "" in Component 1. When the existence of a telecommunication number is not known, enter Unknown in Component 1.

Examples:

   ^^^^^^123-4567

   ""

   Unknown

   ^^^^^(404)^123-4567^^patient's mother

   ^^^^^^123-4567^9876^8:00 am to 5:00 pm

Design Considerations for Record System Implementers

Missing, Unknown, and Null Data Values

Missing, unknown, and null data values must be identifiable and differentiated from one another in patient records. The following definitions and *DEEDS* conventions are recommended:

Missing values are values that are either not sought or not recorded. Typically, no keystrokes are made in a computerized record system, and as a result alphanumeric fields remain as default characters (most often blanks) and numeric fields are identifiable as never having had entries.

Unknown values are values that are recorded to indicate that information was sought and found to be unavailable. In *DEEDS*, various conventions are used to enter unknown values: the word "Unknown" or a single character value (9 or U) for the ST — string data type; 99 for two or more unknown digits for the TS — time stamp data type; and 9 or a series of 9s for the NM — numeric data type. Note: the use of Unknown, U, and 9s in this document to represent values that are not known is an arbitrary choice. Other notations may be used for unknown value entries.

Null values are values that represent none or zero or that indicate specific properties are not measured. For alphanumeric fields, the convention of entering "" in the field is recommended to represent none (e.g., no telephone number), and the absence of an inquiry (e.g., not asking about a telephone number) requires no data entry and results in missing data. For numeric fields, the convention of entering 8 or a series of 8s is recommended to denote that a measurement was not made, preserving an entry of zero for a number in the measurement continuum. For example, 888 is the entry recommended when a patient's systolic blood pressure is not measured, and zero indicates the absence of systolic blood pressure in an asystolic patient. Note: the use of "" and 8s in this document to represent null values is an arbitrary choice. Other notations may be used for null value entries.

In *DEEDS*, null or unknown values in multicomponent data types (i.e., CE, CX, EI, HD, PL, TQ, XAD, XCN, XON, XPN, and XTN) are indicated in the first alphanumeric component. For example, in an XAD data type, "" or Unknown would be entered in the <street name (ST)> component to indicate there was no address or that the address was not known, and no data would be entered in the remaining components.

Data Elements and Components That Are Not Applicable

Data entry is not required in certain fields when the data elements or their components do not pertain (e.g., Pregnancy Status Reported in ED is not applicable to male patients, ED Discharge Medication Group is not applicable to patients discharged without a prescription for medication, academic degree may be irrelevant in Emergency Contact Name). Skip patterns should be used as needed to reduce data entry burdens.

REFERENCES

REFERENCES

Accredited Standards Committee X12 (ASC X12). *Accredited Standards Committee X12 Provider Taxonomy, Version 2.0.* St. Louis, Missouri: ASC X12, 1997.

American Medical Association. *Physicians' Current Procedural Terminology.* Chicago, Illinois: American Medical Association, 1997.

ASTM. *E1238-94: Standard Specification for Transferring Clinical Observations Between Independent Computer Systems.* Philadelphia, Pennsylvania: ASTM, 1994.

ASTM. *E1384-96: Standard Guide for Content and Structure of the Computer-Based Patient Record.* West Conshohocken, Pennsylvania: ASTM, 1996.

ASTM. *E1633-96: Standard Specification for Coded Values Used in the Computer-Based Patient Record.* West Conshohocken, Pennsylvania: ASTM, 1996.

ASTM. *E1744-95: Standard Guide for View of Emergency Medical Care in the Computerized Patient Record.* West Conshohocken, Pennsylvania: ASTM, 1995.

Bowles LT. *The Role of Emergency Medicine in the Future of American Medical Care.* New York, New York: Josiah Macy, Jr. Foundation, 1995.

Cote RA, Rothwell DJ, Palotay JL, Beckett RS, Brochu L. *Systematized Nomenclature of Human and Veterinary Medicine — SNOMED International.* Skokie, Illinois: College of American Pathologists, 1993.

Davis RJ, Tait VF, Dean M, Goldberg AL, Rogers M. Head and spinal cord injury. In: *Textbook of Pediatric Intensive Care.* Rogers MC, Ackerman AD, Dean JM et al., eds. Baltimore, Maryland: Williams and Wilkins, 1992:805-857.

Emergency Nurses Association (ENA). *National Survey of Emergency Departments.* Park Ridge, Illinois: ENA, 1995.

Emergency Nurses Association (ENA). *Triage: Meeting the Challenge.* Park Ridge, Illinois: ENA, 1992.

Food and Drug Administration. *National Drug Code Directory.* Rockville, Maryland: Food and Drug Administration, U.S. Department of Health and Human Services, 1996.

Forrey AW, McDonald CJ, DeMoor G, et al. Logical Observation Identifier Names and Codes (LOINC) Database: a public use set of codes and names for electronic reporting of clinical laboratory test results. *Clinical Chemistry* 1996;42:81-90.

Garrison HG, Runyan CW, Tintinalli JE, et al. Emergency department surveillance: an examination of issues and a proposal for a national strategy. *Annals of Emergency Medicine* 1994;24: 849-856.

Harshbarger D, Stout N. Classifying deaths as on the job. *Journal of Occupational Medicine* 1995;37:124-125.

Health Care Financing Administration (HCFA). *National Provider Identifier/National Provider File. Concept of Operations.* Baltimore, Maryland: HCFA, U.S. Department of Health and Human Services, 1995.

Health Care Financing Administration (HCFA). *Carriers Manual, L 2010, Health Insurance Claim Form HCFA 1500.* Baltimore, Maryland: HCFA, U.S. Department of Health and Human Services, 1996.

R
E
F
S

Health Care Financing Administration (HCFA). *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Intermediary Operations.* Baltimore, Maryland: HCFA, U.S. Department of Health and Human Services, 1996.

Health Care Financing Administration (HCFA). *Establishing and Maintaining the National Provider Identifier (NPI) Effort in Carrier Operations.* Baltimore, Maryland: HCFA, U.S. Department of Health and Human Services, 1996.

Health Information Policy Council. 1984 Revision of the Uniform Hospital Discharge Data Set. *Federal Register* 1985;50:31038-31040.

Health Level 7 (HL7). *Health Level 7, Version 2.3.* Ann Arbor, Michigan: HL7, 1996.

Institute of Medicine. Committee on Regional Health Data Networks. *Health Data in the Information Age.* Washington, DC: National Academy Press, 1994.

International Organization for Standardization (ISO). *ISO 2995-83 Information Processing — Representation of SI and Other Units in Systems with Limited Character Sets.* Geneva, Switzerland: ISO, 1983.

International Organization for Standardization (ISO). *ISO 4217-90 Currency and Funds Codes.* Geneva, Switzerland: ISO, 1990.

Lamberts H, Wood M, eds. *ICPC, International Classification of Primary Care.* New York, New York: Oxford University Press, 1987.

MacLean S. *The ENA National Emergency Department Database: 1995 Annual Survey Report.* Park Ridge, Illinois: Emergency Nurses Association, 1996.

Martin K, Scheet N, eds. *The Omaha System: Applications for Community Health Nursing.* Philadelphia, Pennsylvania: W.B. Saunders, 1992.

McCloskey J, Bulechek G, eds. *Nursing Interventions Classification.* St. Louis, Missouri: Mosby Year Book, 1995.

National Center for Health Statistics (NCHS). *NCHS Guidelines for Coding External Causes of Injuries, Poisonings and Adverse Effects of Drugs.* Hyattsville, Maryland: NCHS, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, 1996.

National Center for Health Statistics (NCHS). *Reason for Visit Classification and Coding Manual, 1994.* Hyattsville, Maryland: NCHS, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, 1994.

National Committee on Vital and Health Statistics (NCVHS). Report on the Uniform Ambulatory Care Data Set. In: *NCVHS Annual Report, 1989.* Hyattsville, Maryland: National Center for Health Statistics, Centers for Disease Control, U.S. Department of Health and Human Services, 1990.

National Committee on Vital and Health Statistics (NCVHS). *Core Health Data Elements.* Hyattsville, Maryland: National Center for Health Statistics, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, 1996.

National Highway Traffic Safety Administration. Critical Automated Data Reporting Elements (CADRE). *Federal Register* 1992;57:1302-1307.

National Highway Traffic Safety Administration. *Uniform Pre-Hospital Emergency Medical Services Data Conference Final Report.* Springfield, Virginia: National Technical Information Service, 1994.

National Uniform Billing Committee. *Uniform Bill-92 (UB-92) National Uniform Billing Data Elements Specifications as Developed by the National Uniform Billing Committee.* Chicago, Illinois: American Hospital Association, 1996.

Nordic Medico-Statistical Committee (NOMESCO). *NOMESCO Classification of External Causes of Injuries.* Copenhagen, Denmark: NOMESCO, 1996.

North American Nursing Diagnosis Association (NANDA). *The NANDA Nursing Diagnosis: Definitions and Classification 1997-1998.* Philadelphia, Pennsylvania: NANDA, 1997.

O'Neill MJ, Payne C, Read JD. Read Codes Version 3: a user led terminology. *Methods of Information in Medicine,* 1995;34:187-192.

Office of Management and Budget. Statistical Policy Directive Number 15: Race and Ethnic Standards for Federal Statistics and Administrative Reporting. *Federal Register* 1978;43:19269-19270.

Office of Management and Budget. *Standard Industrial Classification Manual, 1987.* Washington, DC: U.S. Government Printing Office, 1987.

Office of Management and Budget. Standards for the Classification of Federal Data on Race and Ethnicity. *Federal Register* 1995;60:44674-44693.

Office of Technology Assessment. *Protecting Privacy in Computerized Medical Information, OTA-TCT-576.* Washington, DC: U.S. Government Printing Office, 1993.

Orthopedic Trauma Association. Fracture and dislocation compendium. *Journal of Orthopedic Trauma* 1995;(Suppl):1-154.

Saba VK. The classification of home health care nursing: diagnoses and interventions. *Caring Magazine* 1992;11:50-57.

Sheehy S. *Emergency Nursing: Principles and Practice*, third edition. St. Louis, Missouri: Mosby, 1992.

Teasdale G, Jennett B. Assessment and prognosis of coma after head injury. *Acta Neurochirurgica* 1976;34:45-55.

U.S. Bureau of the Census: *1990 Census of Population and Housing: Alphabetic Index of Industries and Occupations.* Washington, DC: U.S. Government Printing Office, 1992.

U.S. Department of Health and Human Services (USDHHS). *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*, fifth edition. Washington, DC: USDHHS, 1995.

Werley H, Lang N, eds. *Identification of the Nursing Minimum Data Set.* New York, New York: Springer, 1988.

World Health Organization (WHO). *International Statistical Classification of Diseases and Related Health Problems, 10th Revision.* Geneva, Switzerland: WHO, 1992.

World Health Organization Working Group on Injury Surveillance Methodology Development. *Draft: International Classification for External Cause of Injuries.* Amsterdam, Holland: Consumer Safety Institute, 1995.

World Health Organization Collaborating Centre for International Drug Monitoring. *World Health Organization (WHO) Drug Dictionary.* Uppsala, Sweden: WHO Collaborating Centre for International Drug Monitoring, 1996.

APPENDIX —

DEEDS DATA ELEMENTS GROUPED INTO HL7 SEGMENTS FOR MESSAGE TRANSMISSION

Most *DEEDS* data elements can be transmitted in existing *Health Level 7, Version 2.3* segments. The 3-character identifier and name for these segments (and the section in *HL7* where they are defined) are as follows:

AL1	Patient Allergy Information Segment (3.3.6)
AUT	Authorization Information Segment (11.5.2)
CTD	Contact Data Segment (11.5.4)
DG1	Diagnosis Segment (6.4.2)
IN1	Insurance Segment (6.4.6)
NK1	Next of Kin/Associated Parties Segment (3.3.5)
OBR	Observation Request (4.5.1)
OBX	Observation/Result Segment (7.3.2)
ORC	Common Order Segment (4.3.1)
PID	Patient Identification Segment (3.3.2)
PRA	Practitioner Detail Segment (8.6.3)
PV1	Patient Visit Segment (3.3.3)
RXA	Pharmacy/Treatment Administration Segment (4.8.14)
RXO	Pharmacy/Treatment Order Segment (4.8.2)
RXR	Pharmacy/Treatment Route Segment (4.8.3)
STF	Staff Identification Segment (8.6.2)

Several *DEEDS* data elements cannot be transmitted in segments defined in *HL7, Version 2.3*. In accordance with *HL7* messaging standards, these data elements are to be transmitted in externally defined segments known as Z segments. Data elements 3.07-3.10 (the ED Payment Authorization Group) are to be transmitted in a *DEEDS*-defined ZAU segment, and data elements 8.08-8.12 (the ED Referral Group) are to be transmitted in a *DEEDS*-defined ZRF segment.

The following table is intended to aid implementation of *DEEDS, Release 1.0* in accordance with *HL7, Version 2.3*. Groups of *DEEDS* data elements are organized into message segments, separated from one another by a row of white space. For example, the white space between data elements 1.13 and 1.14 represents the division between an OBX segment and an NK1 segment. Additional data fields are needed for *HL7*-compliant message transmission. These data fields are listed in the table's right-most column.

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
1.01 Internal ID	CX — extended composite ID with check digit	20	PID-3	None
1.02 Name	XPN — extended person name	48	PID-5	
1.03 Alias	XPN — extended person name	48	PID-9	
1.04 Date of Birth	TS — time stamp	26	PID-7	
1.05 Sex	IS — coded value for user-defined tables	1	PID-8	
1.06 Race	IS — coded value for user-defined tables	1	PID-10	
1.07 Ethnicity	IS — coded value for user-defined tables	3	PID-22	
1.08 Address	XAD — extended address	106	PID-11	
1.09 Telephone Number	XTN — extended telecommunication number	40	PID-13	
1.10 Account Number	CX — extended composite ID with check digit	20	PID-18	
1.11 Social Security Number	ST — string data	16	PID-19	

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
1.12 Occupation	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-11

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
1.13 Industry	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-11

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
1.14 Emergency Contact Name	XPN — extended person name	48	NK1-2	NK1-1 Set NK1-7 to code indicating that the role of the individual identified in NK1-2 is the emergency contact.
1.15 Emergency Contact Address	XAD — extended address	106	NK1-4	
1.16 Emergency Contact Telephone Number	XTN — extended telecommunication number	40	NK1-5	
1.17 Emergency Contact Relationship	CE — coded element	60	NK1-3	

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
2.01 ED Facility ID	PL — person location	80	PV1-3	PV1-2
2.02 Primary Practitioner Name	XPN — extended person name	48	NK1-2	NK1-1 Set NK1-7 to code indicating that the role of the individual identified in NK1-2 is the primary practitioner.
2.03 Primary Practitioner ID	CX — extended composite ID with check digit	32	NK1-33	
2.04 Primary Practitioner Type	CE — coded element	60	NK1-3	
2.05 Primary Practitioner Address	XAD — extended address	106	NK1-4	
2.06 Primary Practitioner Telephone Number	XTN — extended telecommunication number	40	NK1-5	
2.07 Primary Practitioner Organization	XON — extended composite name and ID number for organizations	60	NK1-13	
2.08 ED Practitioner ID	CX — extended composite ID with check digit	60	STF-2	STF-1
2.09 ED Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
2.10 ED Practitioner Current Role	IS — coded value for user-defined tables	3	PRA-3	PRA-1
2.11 ED Consultant Practitioner ID	CX — extended composite ID with check digit	60	STF-2	STF-1
2.12 ED Consultant Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
2.13 Date/Time ED Consult Request Initiated	TS — time stamp	26	OBX-5	OBX-2 OBX-3 OBX-11
2.14 Date/Time ED Consult Starts	TS — time stamp	26	OBX-5	OBX-2 OBX-3 OBX-11

A P P S

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
3.01 Insurance Coverage or Other Expected Source of Payment	IS — coded value for user-defined tables	3	IN1-15	IN1-1 IN1-3
3.02 Insurance Company	XON — extended composite name and ID number for organizations	130	IN1-4	
3.03 Insurance Company Address	XAD — extended address	106	IN1-5	
3.04 Insurance Plan Type	CE — coded element	60	IN1-2	
3.05 Insurance Policy ID	ST — string data	15	IN1-36	
3.06 ED Payment Authorization Requirement	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
3.07 Status of ED Payment Authorization Attempt	CE — coded element	60	ZAU-2	ZAU-1 (10-character sequence number)
3.08 Date/Time of ED Payment Authorization Attempt	TS — time stamp	26	ZAU-4	
3.09 ED Payment Authorization Decision	CE — coded element	60	ZAU-5	
3.10 Date/Time of ED Payment Authorization Decision	TS — time stamp	26	ZAU-6	
3.11 Entity Contacted to Authorize ED Payment	ST — string data	45	AUT-3	AUT-2
3.12 ED Payment Authorization Code	EI — entity identifier	30	AUT-6	
3.13 Person Contacted to Authorize ED Payment	XPN — extended person name	106	CTD-2	CTD-1
3.14 Telephone Number of Entity or Person Contacted to Authorize ED Payment	XTN — extended telecommunication number	100	CTD-5	
3.15 Total ED Facility Charges	MO — money	12	OBX-5	OBX-2 OBX-3 OBX-11
3.16 Total ED Professional Fees	MO — money	12	OBX-5	OBX-2 OBX-3 OBX-11

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
4.01 Date/Time First Documented in ED	TS — time stamp	26	OBX-5	OBX-2 OBX-3 OBX-11
4.02 Mode of Transport to ED	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-11
4.03 EMS Unit that Transported ED Patient	CX — extended composite ID with check digit	60	OBX-5	OBX-2 OBX-3 OBX-11
4.04 EMS Agency that Transported ED Patient	CX — extended composite ID with check digit	60	OBX-5	OBX-2 OBX-3 OBX-11
4.05 Source of Referral to ED	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
4.06 Chief Complaint	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-11
4.07 Initial Encounter for Current Instance of Chief Complaint	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
4.08 First ED Acuity	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
4.09 Date/Time of First ED Acuity Assessment	TS — time stamp	26	OBX-14	
4.10 First ED Acuity Assessment Practitioner ID	XCN — extended composite ID number and name for persons	80	OBX-16	
4.11 First ED Acuity Assessment Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
4.12 First ED Responsiveness Assessment	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
4.13 Date/Time of First ED Responsiveness Assessment	TS — time stamp	26	OBX-14	

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
4.14 First ED Glasgow Eye Opening Component Assessment	NM — numeric	1	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 4.14–4.17) OBX-11 OBX-14
4.15 First ED Glasgow Verbal Component Assessment	NM — numeric	1	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 4.14–4.17) OBX-11 OBX-14
4.16 First ED Glasgow Motor Component Assessment	NM — numeric	1	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 4.14–4.17) OBX-11 OBX-14
4.17 Date/Time of First ED Glasgow Coma Scale Assessment	TS — time stamp	26	OBX-14	Transmit with data elements 4.14–4.17.
4.18 First ED Systolic Blood Pressure	NM — numeric	3	OBX-5	OBX-2 OBX-3 OBX-11
4.19 Date/Time of First ED Systolic Blood Pressure	TS — time stamp	26	OBX-14	
4.20 First ED Diastolic Blood Pressure	NM — numeric	3	OBX-5	OBX-2 OBX-3 OBX-11
4.21 First ED Heart Rate	NM — numeric	3	OBX-5	OBX-2 OBX-3 OBX-11
4.22 First ED Heart Rate Method	CE — coded element	60	OBX-17	
4.23 Date/Time of First ED Heart Rate	TS — time stamp	26	OBX-14	

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
4.24 First ED Respiratory Rate	NM — numeric	3	OBX-5	OBX-2 OBX-3 OBX-11
4.25 Date/Time of First ED Respiratory Rate	TS — time stamp	26	OBX-14	
4.26 First ED Temperature Reading	NM — numeric	4	OBX-5	OBX-2 OBX-3 OBX-6 OBX-11
4.27 First ED Temperature Reading Route	CE — coded element	60	OBX-17	
4.28 Date/Time of First ED Temperature Reading	TS — time stamp	26	OBX-14	
4.29 Measured Weight in ED	NM — numeric	5	OBX-5	OBX-2 OBX-3 OBX-6 OBX-11
4.30 Pregnancy Status Reported in ED	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
4.31 Date of Last Tetanus Immunization	TS — time stamp	26	OBX-5	OBX-2 OBX-3 OBX-11
4.32 Medication Allergy Reported in ED	CE — coded element	60	ALI-3	AL1-1 AL1-2

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
5.01 Date/Time of First ED Practitioner Evaluation	TS — time stamp	26	OBX-14	OBX-2 OBX-3 OBX-11
5.02 Date/Time of Illness or Injury Onset	TS — time stamp	26	OBX-5	OBX-2 OBX-3 OBX-11
5.03 Injury Incident Description	ST — string data	200	OBX-5	OBX-2 OBX-3 OBX-11
5.04 Code Cause of Injury	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
5.05 Injury Incident Location Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
5.06 Injury Activity	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
5.07 Injury Intent	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
5.08 Safety Equipment Use	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
5.09 Current Therapeutic Medication	CE — coded element	100	RXO-1	None
5.10 Current Therapeutic Medication Dose	NM — numeric	20	RXO-2	
5.11 Current Therapeutic Medication Dose Units	CE — coded element	60	RXO-4	
5.12 Current Therapeutic Medication Schedule	TQ — timing/quantity	200	ORC-7	ORC-1
5.13 Current Therapeutic Medication Route	CE — coded element	60	RXR-1	None

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding *HL7* Segment Data Field	Additional Required *HL7* Segment Data Fields
5.14 ED Clinical Finding Type	CE — coded element	590	OBX-3	OBX-2 OBX-4 (used to group data elements 5.14–5.19) OBX-6 OBX-11
5.15 ED Clinical Finding	Variable data type	up to 65,536	OBX-5	
5.16 Date/Time ED Clinical Finding Obtained	TS — time stamp	26	OBX-14	
5.17 ED Clinical Finding Practitioner ID	XCN — extended composite ID number and name for persons	80	OBX-16	

5.18 ED Clinical Finding Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 5.14–5.19) OBX-11

5.19 ED Clinical Finding Data Source	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 5.14–5.19) OBX-11

A
P
P
S

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
6.01 ED Procedure Indication	CE — coded element	300	OBR-31	None
6.02 ED Procedure	CE — coded element	200	OBR-4	
6.03 Date/Time ED Procedure Ordered	TS — time stamp	26	OBR-6	
6.04 Date/Time ED Procedure Starts	TS — time stamp	26	OBR-7	
6.05 Date/Time ED Procedure Ends	TS — time stamp	26	OBR-8	
6.06 ED Procedure Practitioner ID	XCN — extended composite ID number and name for persons	80	OBR-16	
6.07 ED Procedure Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
6.08 Date/Time ED Diagnostic Procedure Result Reported	TS — time stamp	26	OBR-22	Transmit as part of the OBR segment containing data elements 6.01–6.06.
6.09 ED Diagnostic Procedure Result Type	CE — coded element	590	OBX-3	OBX-2 OBX-4 OBX-6 OBX-11
6.10 ED Diagnostic Procedure Result	Variable data type	up to 65,536	OBX-5	

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
7.01 Date/Time ED Medication Ordered	TS — time stamp	26	ORC-9	ORC-1
7.02 ED Medication Ordering Practitioner ID	XCN — extended composite ID number and name for persons	120	ORC-12	
7.03 ED Medication Ordering Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
7.04 ED Medication	CE — coded element	100	RXA-5	RXA-1 RXA-2
7.05 ED Medication Dose	NM — numeric	20	RXA-6 for medications in which dose is expressed in simple units (e.g., mg) RXA-13 for medications in which dose is expressed in compound units (e.g., mg/kg or mg/kg/hr)	
7.06 ED Medication Dose Units	CE — coded element	60	RXA-7 for medications in which dose is expressed in simple units (e.g., mg) RXA-14 for medications in which dose is expressed in compound units (e.g., mg/kg or mg/kg/hr)	
7.07 ED Medication Schedule	TQ — timing/quantity	200	ORC-7	Transmit as part of the ORC segment containing data elements 7.01 and 7.02.
7.08 ED Medication Route	CE — coded element	60	RXR-1	None

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding *HL7* Segment Data Field	Additional Required *HL7* Segment Data Fields
7.09 Date/Time ED Medication Starts	TS — time stamp	26	RXA-3	Transmit as part of the RXA segment containing data elements 7.04–7.06.
7.10 Date/Time ED Medication Stops	TS — time stamp	26	RXA-4	
7.11 ED Medication Administering Practitioner ID	XCN — extended composite ID number and name for persons	200	RXA-10	
7.12 ED Medication Administering Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
8.01 Date/Time of Recorded ED Disposition	TS — time stamp	26	PV1-45	PV1-2
8.02 ED Disposition	IS — coded value for user-defined tables	3	PV1-36	
8.03 Inpatient Practitioner ID	XCN — extended composite ID number and name for persons	60	PV1-7	
8.04 Inpatient Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
8.05 Facility Receiving ED Patient	PL — person location	80	PV1-42	Transmit as part of the PV1 segment containing data elements 8.01–8.03.
8.06 Date/Time Patient Departs ED	TS — time stamp	26	OBX-5	OBX-2 OBX-3 OBX-11
8.07 ED Follow-Up Care Assistance	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
8.08 Referral at ED Disposition	CE — coded element	60	ZRF-2	ZRF-1 (10-character sequence number)
8.09 ED Referral Practitioner Name	XPN — extended person name	48	ZRF-3	
8.10 ED Referral Practitioner ID	XCN — extended composite ID number and name for persons	80	ZRF-4	
8.11 ED Referral Practitioner Type	CE — coded element	60	ZRF-5	
8.12 ED Referral Organization	XON — extended composite name and ID number for organizations	90	ZRF-6	
8.13 ED Discharge Medication Order Type	ID — coded value for HL7 tables	2	ORC-1	None
8.14 ED Discharge Medication Ordering Practitioner ID	XCN — extended composite ID number and name for persons	120	ORC-12	

A
P
P
S

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
8.15 ED Discharge Medication Ordering Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
8.16 ED Discharge Medication	CE — coded element	100	RXO-1	None
8.17 ED Discharge Medication Dose	NM — numeric	20	RXO-2	
8.18 ED Discharge Medication Dose Units	CE — coded element	60	RXO-4	
8.19 ED Discharge Medication Schedule	TQ — timing/quantity	200	ORC-7	Transmit as part of the ORC segment containing data elements 8.13 and 8.14.
8.20 ED Discharge Medication Route	CE — coded element	60	RXR-1	None
8.21 Amount of ED Discharge Medication to be Dispensed	NM — numeric	20	RXO-11	Transmit as part of the RXO segment containing data elements 8.16–8.18.
8.22 Number of ED Discharge Medication Refills	NM — numeric	3	RXO-13	
8.23 ED Disposition Diagnosis Description	ST — string data	400	DG1-4	DG1-1 DG1-2 DG1-6
8.24 ED Disposition Diagnosis Code	CE — coded element	60	DG1-3	
8.25 ED Disposition Diagnosis Practitioner ID	XCN — extended composite ID number and name for persons	60	DG1-16	
8.26 ED Disposition Diagnosis Practitioner Type	CE — coded element	60	DG1-11	
8.27 ED Service Level	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
8.28 ED Service Level Practitioner ID	XCN — extended composite ID number and name for persons	80	OBX-16	

DEEDS Data Element Number and Name	Data Type	Field Length	Corresponding HL7 Segment Data Field	Additional Required HL7 Segment Data Fields
8.29 ED Service Level Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-11
8.30 Patient Problem Assessed in ED Outcome Observation	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 8.30–8.34) OBX-11
8.31 ED Outcome Observation	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 8.30–8.34) OBX-11
8.32 Date/Time of ED Outcome Observation	TS — time stamp	26	OBX-14	
8.33 ED Outcome Observation Practitioner	XCN — extended composite ID number and name for persons	80	OBX-16	
8.34 ED Outcome Observation Practitioner Type	CE — coded element	60	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 8.30–8.34) OBX-11
8.35 ED Patient Satisfaction Report Type	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 8.35 and 8.36) OBX-11
8.36 ED Patient Satisfaction Report	CE — coded element	200	OBX-5	OBX-2 OBX-3 OBX-4 (used to group data elements 8.35 and 8.36) OBX-11

A
P
P
S

IF YOU'RE INTERESTED IN OTHER NCIPC PUBLICATIONS...

For readers who would like more information about injury control, a variety of publications are available free of charge from the National Center for Injury Prevention and Control. They can be ordered through the NCIPC home page on the Internet at www.cdc.gov/ncipc/ncipchm.htm or from the addresses given below.

On acute care, rehabilitation, and disabilities . . .

Guidelines for Surveillance of Central Nervous System Injury (1995)

Copies may be obtained by contacting the Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Acute Care, Rehabilitation Research, and Disability Prevention, MS F-41, 4770 Buford Highway NE, Atlanta, GA 30341-3724.

On injuries that take place in the home or during leisure activities . . .

Major Causes of Unintentional Injuries Among Older Persons (1996)

Efforts to Increase Smoke Detector Use in U.S. Households: An Inventory of Programs (1996)

Home and Leisure Injuries in the United States: A Compendium of Articles from the Morbidity and Mortality Weekly Report, 1985-1995 (1996)

Prevention of Motor Vehicle-Related Injuries: A Compendium of Articles from the Morbidity and Mortality Weekly Report, 1985-1996 (Available in Summer 1997)

Copies may be obtained by contacting the Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention, MS K-63, 4770 Buford Highway NE, Atlanta, GA 30341-3724.

On violence . . .

Suicide in the United States, 1980-1992 (1995)

Homicide and Suicide Among Native Americans, 1979-1992 (1996)

The Prevention of Youth Violence: A Framework for Community Action (1993)

Youth Suicide Prevention Programs: A Resource Guide (1992)

Youth Violence Prevention: Descriptions and Baseline Data from 13 Evaluation Projects (1996)

Copies may be obtained by contacting the Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Violence Prevention, MS K-60, 4770 Buford Highway NE, Atlanta, GA 30341-3724.

Of general interest . . .

Injury Control in the 1990s: A National Plan (1993)

Guide to Applying for Injury Research Grants (1995)

The National Center for Injury Prevention and Control also publishes a quarterly newsletter, *Injury Control Update*, featuring the latest work in injury control by the center and others in the injury control field. If you would like to order these publications or be placed on the mailing list for the newsletter, contact the Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Office of Communication Resources, MS K-65, 4770 Buford Highway NE, Atlanta, GA 30341-3724.