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ABSTRACT

Aim: The gap between research and clinical practice leads to inconsistent decision-making and clinical audits are an effective way of improving the implementation of best practice. Our aim is to assess the effectiveness of a model that implements evidence-based recommendations for patient outcomes and healthcare quality.

Design: National quasi-experimental, multicentre, before and after study.

Methods: This study focuses on patients attending primary care and hospital care units and associated

socio-healthcare services. It uses the Joanna Brigg's Institute Getting Research into Practice model, which improves processes by referring to prior baseline clinical audits. The variables are process and outcome criteria for pain, urinary incontinence and fall prevention, with data collection at baseline and key points over 12 months drawn from clinical histories and records. Project funding was received from the Spanish Strategic Health Action in November 2014.

Discussion: The project results will provide knowledge on the effectiveness of the Getting Research into Practice model, to apply evidence-based recommendations for the detection and management of pain, urinary incontinence and fall prevention. It will also establish whether using research results, based on clinical audits and situation analysis, is effective for implementing evidence-based recommendations and improving patients' health.

Impact: This nationwide Spanish project aims to detect and prevent high-prevalence healthcare problems, namely pain in patients at any age and falls and urinary incontinence in people aged 65 and over. Tailoring clinical practice to evidence-based recommendations will reduce unjustified clinical variations in providing healthcare services.

Clinical Trial ID: NCT03725774

Key words: clinical audits, clinical practice, evidence-based medicine, falls, healthcare services, healthcare quality, pain, patient outcomes, urinary incontinence, nursing

INTRODUCTION

Current evidence indicates that clinical audits are an effective way of enhancing the quality of healthcare services and implementing best practice. The use of specific strategies and resources for a specific recommendation yields better results in clinical practice, because this does not require organisational changes at an institutional level (Flodgren et al., 2010; Bauer et al., 2015).

The aim of the study is to assess whether the use of specific recommendations for pain, urinary incontinence and fall prevention, as assessed by clinical audits, improves clinical practice, reduces variability and thereby achieves better patient outcomes. To this end, we based our approach on the Joanna Briggs Institute's Getting Research into Practice (GRIP) model, which facilitates continuous improvements in healthcare quality (Pearson, 2004).

Background

Health service planning and delivery must be based on current valid evidence. Despite this, there are studies that show there is a wide gap between research and practice, which means that research results are not contributing to improved care (Pallen & Timmins, 2002; Grimshaw et al., 2006; Kajermo et al., 2010, Squires et al., 2011; Kreindler et al., 2016).

There are considerable variations in the methods used to decide and apply best treatment. The lack of consensus in how to apply recommendations can increase the risk of making mistakes and the misuse of the material and human resources that are available (Sackett et al., 1996; Shaneyfelt et al., 1999; Forbes & Griffiths, 2002; Milner et al., 2006). Some authors report that 30% to 40% of patients do not receive research-based care and that 20% of the care that is provided might be unnecessary or potentially harmful (Schuster et al., 1998; Grol, 2003; Goldrick et al., 2016).

Research is a complex process, influenced by the factors, characteristics and attributes of individuals, organisations and innovation *per se* (Estabrooks, 1999; Meijers et al., 2006; Squires et al., 2011; Goldrick et al., 2016). It also includes political, organisational, socio-economic and attitudinal

components (Kitson et al., 1996; Meijers et al., 2006; Squires et al., 2011). Research explores contextual questions rather than just individual questions.

Research results will not lead to changes for patients unless systems, organisations and health professionals apply them in clinical practice and include them in health policies. Unfortunately, one of the most consistent results in health service research is that transferring knowledge to practice is a slow and chaotic process (Graham et al., 2006; Bauer et al., 2015).

The dissemination of relevant research results that are ready to be incorporated into clinical practice, using comprehensible formats and suggestions that can be implemented, is a crucial step to increasing research by nursing professionals (Dobbins et al., 2001; Bornbaum, 2015).

In addition, the implementation of research-based knowledge into clinical practice has been identified as an indicator of an optimal environment where the improvements in patients' outcomes are evident (Squires et al., 2008). Implementing changes, translating research into practice and improving quality of care is a complex, difficult and challenging process (Rycroft-Malone, 2007). Therefore, it is necessary to evaluate the impact that implementing evidence has on patients' outcomes, to assess to what degree evidence implementation is effective in a specific context and to explore the opportunities to extend it to other contexts (Damschoroder et al., 2013).

Several systematic reviews have evaluated the effects of introducing clinical practice guidelines (CPG) into healthcare. Grimshaw & Russell (1993) carried out a review about the implementation of CPG for doctors, while Thomas et al. (1999) reviewed the implementation of guidelines for nursing and related professions. Both reviews concluded that care based on well-produced CPG can change clinical practice and produce changes in patients' outcomes. However, more studies, with higher methodological quality, are needed that evaluate the different dissemination strategies and the implementation of the recommendations advised by the CPG.

Shamian-Ellen (2007) carried out another systematic review on the same lines about implementing CPG and found a reduction in the patients' average time in hospital, which she attributed to the use of CPG. Davies et al. (2008) found considerable variations in outcomes, depending on the indicators and

the implemented guides. They attributed these to the incomplete and inconsistent application of the processes, which is something that could be related to the complexity of CPG implementation.

A study that analysed 27 CPG (Stergiou-Kita, 2010) singled out three types of characteristics as relevant factors. The first was the actual guidelines, which should be relatively straightforward and contain educational material, algorithms and clear recommendations, since this will ensure that they have a higher likelihood of being used. The second characteristic was the beliefs and attitudes of the professionals. The third was the culture of the organisation, including the availability of resources, support for other professionals, reinforcement and reward systems, communication and collaborative decision-making.

Current evidence also indicates that clinical audits are an effective way of improving healthcare service quality and implementing best practice (Flodgren et al., 2010). Research shows that evidence-based changes are necessary to change practice and implement evidence. These include team involvement, detecting barriers to achieving change and selecting strategies to overcome them and defining and monitoring indicators of success. Audits also allow teams to get involved (Richard & Grimshaw, 2003). Using resources and strategies to apply a specific recommendation offers better results in clinical practice than applying all the recommendations included in CPG, as this does not require organisational change at an institutional level (Flodgren et al., 2010).

A comprehensive evaluation of barriers and facilitators is the key to developing an implementation strategy and achieving subsequent improvements in practice (Goldrick, 2016). This process will show the causal mechanisms that enable the intervention to work and how the chosen intervention modified, or improved, the previously identified, barriers and facilitators (Grimshaw, 2004). In 2010, a Cochrane systematic review recommended that future implementation studies should explicitly describe how to identify and overcome barriers and that this should be part of any implementation strategy (Baker et al., 2010).

In 2012, the Nursing & Healthcare Research Unit and the Spanish Collaborating Centre of the Joanna Briggs Institute set up a knowledge-transfer research programme, whose objectives include encouraging research in the Spanish National Health Service (NHS). This programme resulted in the

Centres Committed to Excellence in Care (Ruzafa-Martínez et al., 2011), a project funded by the Spanish Strategic Health Action (n° PI12/01603) to create a national network of centres that would implement CPG. The experience gained through this project has shown that implementing evidence-based recommendations improves processes in clinical practice and has positive effects on patient outcomes (Lloyd et al., 2013; González-María et al., 2014; Albornos-Muñoz et al., 2015).

Prompted by comments expressed by professionals at Spanish NHS healthcare centres across the country's autonomous regions, those organizations decided to start a new project. This enabled nursing professionals and other health professionals, who were not in Best Practice Spotlight Organizations and had been unable to participate in evidence-based CPG implementation, to play a role in the implementation of specific evidence-based recommendations.

Once the needs of centres had been determined and the practices susceptible to improvement had been analysed, three healthcare areas that require nursing care were selected. Despite there being solid evidence in each of the three cases, there was also a considerable amount of unjustified variability in daily clinical practice. These areas were: the detection and management of pain, the detection and management of urinary incontinence and the recording and prevention of falls.

Pain is a common, subjective experience that affects a great number of institutionalised patients and it can have a profound effect on individuals' quality of life if it is not appropriately controlled (World Health Organisation [WHO], 2008). It is estimated that 17% of Spain's adult population experiences pain and that almost 12% of this is severe pain. Furthermore, this prevalence increases in people who are institutionalised and subjected to procedures that involve pain (Langley et al., 2011). According to the US Joint Commission's standards of care, all patients should be evaluated, treated and monitored with respect to their pain levels. Despite this, pain assessment is infrequent in current clinical practice and so is its management and monitoring (Torralba et al., 2014; Join Commission, 2016).

Urinary incontinence is a very frequent problem among adults. It is more frequent among women and it increases with age and functional dependence to the extent that it is almost a general problem in chronic care hospitals and nursing homes (Bero et al., 1998). According to most studies, the estimated prevalence of urinary incontinence ranges from 23% to 44% in women over 18 years (Hunskaar et al.,

2004).

Falls are one of the main causes of preventable adverse events in health institutions and, according to the World Health Organization (WHO, 2015), they are the second leading cause of death due to accidental or unintentional injuries worldwide. It is estimated that each year one-third of people over the age of 65 years will experience a fall and that proportion is even higher among institutionalised patients (Saiz-Vinuesa et al., 2016). The Joint Commission (2016) stated that 28-35% of people over the age of 65 fall every year and that number increases to 32-42% in people over 70. Most fatal falls are suffered by people over 65 and falls are a major cause of injuries in hospitalised patients. Organisations should evaluate their patients' risk of falling, with regard to the population they care for, the care offered, and the equipment provided to prevent falls. They should also put measures in place to reduce the risk of falls and fall-induced injuries.

This study aims to evaluate if the application of concrete recommendations, measured through clinical audits, improves clinical practice, allowing for better outcomes in patients and decreasing unjustified variations in decision-making. The Joanna Briggs Institute's GRIP model, which measures continuous improvements in quality of care (Pearson, 2004), is the model that is being used for this study. This project seeks to assess the effectiveness of a model that enables us to implement concrete recommendations, based on the GRIP model, to improve the detection and management of pain, urinary incontinence and falls.

International relevance

This protocol assesses the effectiveness of a research-based implementation model of clinical recommendations for preventing pain, urinary incontinence and falls. All the recommendations included in the project have been internationally defined by a comprehensive search of the literature. The implementation model is based on the Registered Nurses' Association of Ontario implementation guidelines, which focus on tailored and culturally adapted interventions. The implementation model

and the recommendations outlined in this protocol, will be relevant for any healthcare institutions in any region or country that is willing to improve their clinical practice.

THE STUDY

Aims

The general objective of the Sumamos Excelencia® study, which translates as We Add Excellence, is to assess the effectiveness of an implementation model with specific recommendations, based on the GRIP model, to improve the detection and management of pain, urinary incontinence and fall prevention. We will do this by analysing the degree of compliance and patients' outcomes and improve the quality of health services.

Hypothesis

The implementation of these evidence-based recommendations using the GRIP model aims to improve three key areas of clinical practice. First it will improve pain detection and management and reduce pain levels in patients. Second it will improve the detection and management of urinary incontinence and the impact it has on patients. Third, it will improve the identification and recording of falls, increase the use of prevention measures and reduce the number of falls that cause injuries to patients admitted to hospital.

Design and methodology

This is a quasi-experimental, multicentre, uncontrolled, before-and-after study with repeated measures of response variables at three, six, nine and 12 months. It covers primary and hospital care units and their associated socio-healthcare structures, in the Spanish NHS. Examples of socio-healthcare units could include residence for the elderly

Participants

Two types of study subjects will be included: the Spanish NHS units and their socio-healthcare structures and all the patients who attend those facilities.

The unit inclusion criteria will cover all the health service units and associated socio-healthcare structures in Spain that voluntarily adhere to the project and undertake to implement recommendations relating to pain, urinary incontinence and prevention falls. For the purposes of this study, we have defined a unit as any service, centre or institution that delivers health services to a homogeneous group of patients who share similar characteristics.

Patient inclusion criteria

The study will include all patients who attended the units participating in the study and who meet the following criteria, depending on the recommendations to be implemented at each unit. For pain, the criteria are people of any age admitted to hospital centres who may potentially suffer from some type of pain. Patients will be classified according to whether they are adult or paediatric patients and whether they experience chronic pain, acute postoperative pain or acute pain due to other causes.

The criteria for incontinence will be people who live in the community or are institutionalised and are likely to present with urinary incontinence. This part of the study will only include people who are 65 years of age or over. Falls will focus on people aged over 65 years who display one or more fall risk factors according to the assessment criteria established by the risk assessment instrument used.

Recruitment and sample size

We will recruit the units by using a participation procedure that will be disseminated via the channels available at the Nursing & Healthcare Research Unit and the Spanish Collaborating Centre of the Joanna Briggs Institute. Both institutions have a nationwide focus and they have collaborators in all administrative regions.

Units will apply to participate in the process by completing an online form and the research team will then select those that fulfil the inclusion criteria. They will also ensure the homogeneity of their patients and make sure they comply with all the project requirements, including indicators, baseline assessments, on-line data-collection and training. The units that are selected will be required to implement the project in one of the three topic areas.

Regarding the sample size, we estimate that we need to include 100 units for each of the topic areas, pain, urinary incontinence and falls, bringing the total number to 300 units. The patients that are included will be all those who fulfil the inclusion criteria during the data collection period.

Patients will be selected by consecutive sampling, depending on the unit participating in the study and the results will be assessed at baseline and at three, six, nine, and 12 months post-intervention, by reference to the following criteria. The data collection will be based on the last five days of each quarter during the study period. In primary care units, patients will be included if they attended outpatient clinics in the last five days, in hospital units, if they were discharged in the last five days and in socio-healthcare centres if they were admitted in the last five days of each assessment quarter.

Using these criteria, we estimate that the total number of patients that will be studied will represent 20% of those attended the study units during those five-day periods each quarter.

Intervention

The intervention will consist of using the GRIP model and implementing its strategies in clinical practice, according to the study unit and the scope of the action.

The GRIP model is an improvement process that refers to a prior baseline clinical audit. It analyses local situations, identifies the obstacles to improving clinical practice and draws up and implements a plan of action to improve adherence to pre-established criteria. The goal is to establish inter-professional processes within the teams, to: examine the obstacles that hinder the use of evidence in fostering best practices and contribute to the development of implementation programmes for overcoming such obstacles.

The implementation stage will be based on specific reports from the participating units. Firstly, the initial levels of adherence to the specific best practice criteria of the selected indicator will be assessed with a baseline audit. Once the results of this initial audit have been obtained, we will identify or diagnose the aspects that, in the implementation team's opinion, contribute to the level of compliance attained for auditing criteria. We will then identify the actual and/or potential obstacles to achieving compliance. Thereafter, we will identify improvement actions that can tackle these obstacles, incorporating factors such as the material and human resources associated with each improvement action. This process of identifying obstacles, creating actions and assigning resources is a form of situation analysis.

To this end, we have specially designed an online data collection platform. This will generate a situation analysis report that will specify the team members, the dates when the action needs to be taken to identify each obstacle and the resources required.

To put the intervention into practice, the research team will undergo online training on evidence-based practice, clinical audits and quality cycles and evidence-based recommendations relating to the implementation topic. The people responsible for data collection and for performing the situation analysis of each participating unit, will also undergo specific training. This will ensure that the data is homogeneous, that it is collected in accordance with the project specifications and that the audit is in line with established standards.

Variables

We have based our selection of the main variables on existing evidence and the variations detected in clinical practice. Data will be collected on the variables related to the detection, management and assessment of pain, urinary incontinence and falls. All the indicators that are selected, namely the auditing criteria, will be based on the most suitable CPGs for each variable (Lloyd et al., 2013) (Table1). In addition, data will also be collected on other variables relating to the study units and the patients that attend them.

The unit-related variables will be the type of institution, namely a hospital unit, primary care unit or socio-healthcare unit, the size of the institution based on the number of beds or population coverage and the nurse/patient ratio. The patient-related variables will be the demographic data of age and sex and the clinical data of medical history, the reason for the admission or consultation and how many days any admissions lasted. In addition, data will also be collected on variables specific to pain, urinary incontinence and falls, depending on the indicator and the recommendations to be implemented.

Data collection

The data-collection period will last for 15 months.

Firstly, an initial audit will be carried out on all the indicators to determine the degree of adherence to the best practice criteria included in the project, based on the unit that is participating and the recommendations it selected. Once the situation analysis has been performed and the improvement actions have been implemented, the first follow-up assessment, three months after the intervention, will re-appraise compliance with all the indicators assessed in the initial audit. Further follow-up assessments will be carried out during the last five days of each quarter, six, nine and 12 months after the intervention, in line with the type of unit that is participating. Data on patients and indicators will be obtained from clinical histories and hospital records by the researcher(s) responsible at each centre and will be recorded on the project's on-line platform.

Data-Analysis

A descriptive analysis will be made of all the study variables, based on their nature and distribution. This will use frequencies and percentages, in the case of qualitative variables and means and standard deviations or median, minimum and maximum values in the case of quantitative variables.

To assess the effects of the intervention, an inferential analysis of the pre- and post-intervention measures will be performed. This will enable us to test the corresponding hypotheses, using the

appropriate statistical tests in accordance with the distribution of the parametric and non-parametric variables. The student's t-test will be used for related samples, the non-parametric Wilcoxon signed rank test will be used to compare the means of paired samples and McNemar's test will be used to compare percentages.

To detect the changes generated by the intervention, we propose to analyse the trend in results across the follow-up audits, with 95% confidence intervals. All analyses will be performed using the SPSS version 22.0 statistics software package (IBM Corp, Armonk, New York, USA). Furthermore, a theoretical model will be constructed to describe possible relationships between the criteria of the different variables, to ascertain whether applying that criteria in care bundles will be more effective than applying them individually. This will enable us to establish care bundles for the topic areas included in the study, namely pain, urinary incontinence and falls.

Ethical considerations

The project was authorised by Strategic Health Action in 2014 (number PI14CIII/00044), assessed by a peer-review process and approved by the Research Ethics and Animal Welfare Committee of the Carlos III Health Institute in Madrid (20 July 2015)

All units will participate on a voluntary basis and are required to produce a written commitment from their respective institutions and the researchers responsible for their individual project. All members of the research team will guarantee data confidentiality and anonymity and the ethical principles for biomedical research will be complied with.

Validity and reliability

This study will use validated indicators extracted from reliable best practice guidelines. The pain indicators will be drawn from pain assessment and management guidelines (Nursing Best Practices Guidelines; Registered Nurses' Association of Ontario, 2007), the urinary incontinence indicators from international clinical practice guidelines (National Guideline Clearinghouse; Agency for Health

Care Policy and Research) and the falls indicators from prevention of falls and fall injuries in older adults (Nursing Best Practices Guidelines; Registered Nurses' Association of Ontario, 2011). The protocol, when applicable, will follow the Standard Protocol Items: Recommendations for Interventional Trials 2013 statement for clinical trial protocols.

DISCUSSION

The Sumamos Excelencia® project seeks to assess the effects of the use of research in clinical practice and shared some common ground with the Health, Demographic Change and Welfare programme of Spain's Science & Innovation Strategy (Ministerio de Economía y Competitividad, 2013). This is based on the European Framework Programme for Research and Innovation.

The challenge posed by this programme is to carry out research in the Spanish NHS as a framework for fundamental development. Our ultimate goals include improving public health by addressing the most prevalent diseases and healthcare services. The project focuses on healthcare delivery in the Spanish NHS and aims to detect and prevent very prevalent health problems, such as pain, urinary incontinence and falls.

Moreover, healthcare services need to reduce unjustified clinical variations in care delivery. Using strategies based on the best research results are crucially important for the health system, in view of the constant need to improve patient outcomes (Forbes & Griffiths, 2002).

Furthermore, the above-mentioned challenge requires that new healthcare delivery practices are geared to the prevention and early detection of pathological processes. The Sumamos Excelencia® project will provide knowledge on the effects of using evidence-based recommendations to detect and manage both pain and urinary incontinence and to prevent and manage falls. These three health conditions are highly prevalent in the general population and, more specifically, in people aged 65 years and over. The results that are achieved in respect of these three problems will be translated into improvements in patients' health and quality of life and reduce adverse effects, such as the presence of pain and falls. Similarly, it will make it possible to ascertain whether a strategy that uses research

results based on clinical audits and situation analyses is effective for implementing best practice recommendations.

In view of its national, multicentre, multidisciplinary nature, this project has the capacity to generate synergy between healthcare organizations. We envisage that a considerable number of Spanish NHS units will take part in this nationwide study and the initial forecast is 300. Based on the team's experience of other projects of this type, including Centres Committed to Excellence in Care, creating synergy among the participants is assured, particularly among centres that implement the same recommendations. This will also be the case for participating centres in the same geographical areas.

Limitations

The conclusions of this study may be limited by the biases inherent in the design and the data must be interpreted in that light. However, given that the units will participate on a well-founded and voluntary basis, we feel it is the best design possible.

The data collection platform allows for the development of quality control mechanisms to ensure that information is gathered in accordance with the terms of the study protocol and that all processes comply with established standards. Furthermore, all the people who collect the data will be specially trained to ensure that the same procedure is in place in all study units.

CONCLUSION

The aim of this project is to assess the effects of a GRIP-based model that implements specific recommendations to improve the detection and management of prevalent health problems, such as pain, urinary incontinence and falls. It also seeks to reduce unjustified clinical variations in these areas.

ABBREVIATIONS

CPG, clinical practice guidelines; NHS, National Health Service; GRIP, Getting Research into Practice.

Author Contributions:

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE*):

- 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- 2) drafting the article or revising it critically for important intellectual content.

* <http://www.icmje.org/recommendations/>

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Table 1. Process and result indicators

VARIABLE URINARY INCONTINENCE	PROCESS INDICATOR	DEFINITION
Urinary incontinence	Assessment of presence of urinary incontinence	Assessment of presence of urinary incontinence is the detection of a patient's incontinence using a standardised tool.
Type of urinary incontinence	Assessment of type of urinary incontinence	Assessment of type of urinary incontinence is the detection of a patient's type of incontinence using a standardised tool.
Patient education	Patient education, urinary incontinence management	Patient education, collaboration with patient/family/carers in indentifying goals to manage incontinence and adequate strategies to achieve a comprehensive approach to the care plan.
Urinary incontinence management	Urinary incontinence management	To establish and implement a comprehensive care plan to manage incontinence that includes: evaluation of results, believes, knowledge and level of comprehension of the patient, personal characteristics and incontinence characteristics.
VARIABLE URINARY INCONTINENCE	OUTCOME INDICATOR	DEFINITION
Prevalence	Prevalence of urinary incontinence	[Total number of patients with different levels of urinary incontinence 24 hours prior to assessment / Total number of patients treated during the data-collection period] * 100
Impact	Impact of urinary incontinence	[Total number of patients with different urinary-incontinence impact levels 24 hours prior to assessment / Total number of patients treated during the data-

		collection period] * 100
Severity of incontinence	Patient education, urinary Incontinence management	Assessment of severity of urinary incontinence with a validated tool.
VARIABLE PAIN	PROCESS INDICATOR	DEFINITION
Pain at admission	Detection of pain, at admission	Pain detection is defined as identification of pain suffered by the patient (acute, chronic, nociceptive, neuropathic), using a standardised tool.
Pain after a change in clinical status	Detection of pain, after a change in clinical status	Change in clinical status is defined as any significant clinical modification requiring follow-up by a physician.
Pain assessment	Pain assessment	Chronic pain assessment is defined as overall pain assessment in persons in whom the presence of pain has been detected, and identification of the type of pain (acute, chronic, nociceptive or neuropathic) using a standardised tool.
Pain management	Pain Management	Establishing and implementing an overall pain management care plan for the patient which would include: evaluation of his/her outcomes, beliefs, knowledge, level of understanding and personal characteristics, and characteristics of the pain.
Patient education	Patient education, pain Management	Patient education: collaborating with the patient in the identification of pain-control targets and appropriate strategies for an integrated approach to the care plan.
VARIABLE PAIN	OUTCOME INDICATOR	DEFINITION
Intensity of Pain	Intensity of pain	Pain assessment using a validated tool, for record-keeping purposes.

Maximum pain	Maximum pain	Maximum score or maximum rating reported by a patient after pain-intensity assessment using a validated tool.
VARIABLE FALL	PROCESS INDICATOR	DEFINITION
Risk	Assessment of fall risk, at admission or onset of care	Identification of the presence of factors that have been linked in the literature to an increase in falls. A validated tool can be used to classify patients' risk.
Risk after a fall	Assessment of fall risk, after a fall	Percentage of patients that have been assessed for fall risk with a reliable, validated tool, after experiencing a fall.
Prevention	Prevention of falls	Percentage of patients who are detected to be at risk using a fall-prevention plan or fall-injury reduction programme, based on a multifactorial approach, and are registered.
Restraints	Use of restraints	Restraints are physical, chemical or environmental measures used to control a person's physical or behavioural activity or a part of his/her body.
VARIABLE FALL	OUTCOME INDICATOR	DEFINITION
Incidence of falls	Incidence of falls	Number of falls with or without injury among patients, per 1000 patients/day (acute care/rehabilitation/long stay) Total number of falls with or without injury, per 1000 patients (primary care)
Falls that cause injury	Falls that cause injury	Percentage of falls resulting in mild, moderate, severe injury or death, according to the WHO classification. Injury is defined as bodily harm suffered as a consequence of a fall.