mated to currently suffer from OAB across the five countries. An estimated 2.5 m also have symptoms of urge incontinence. By 2020, 2.1 m additional males are expected to be affected by OAB. The average health care cost associated with managing these patients ranged from €200 in the UK to €732 in Italy. The total cost of OAB in males aged >40 were estimated to be €1.7 billion in 2005: €412 m in Germany; €607 m in Italy; €350 in Spain; €71 m in Sweden and €231 m in the UK. By 2020, the total cost of OAB in males is expected to increase to €2 billion. This compares with a total burden of €4.1 billion in 2005 and projected total burden of €5.2 billion in 2020. DISCUSSION: The burden of OAB in males was 40% of the total burden in the overall population aged > 40. The economic burden is likely to increase in line with our prevalence forecasts. Since many males do not seek treatment, the future cost burden may be underestimated.

Characteristics related to productivity loss in patients with overactive bladder: results from the Matrix Study

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OBJECTIVE: To determine characteristics related to lost productivity in working adults with overactive bladder (OAB) using data from a large US multicenter trial. METHODS: Baseline data were obtained from 2770 participants in the Multicenter Assessment of Transdermal Therapy in Overactive Bladder with Oxybutynin (MATRIX). Productivity was assessed using the Work Productivity Questionnaire (WPQ), a modified version of the Work Limitations Questionnaire (WLQ) which captures physical, mental (concentration), time (interruptions and adherence to a schedule), and output (ability to handle workload) domains related to work productivity. Additional questions on demographics, prior OAB treatment, and daily pad use were asked. A WPQ Index was computed to estimate productivity impairment compared to healthy individuals. Characteristics related to productivity loss were determined using group comparisons (t-test).

RESULTS: Approximately half (52.7%) of participants were of working age (18–64 years), and 44.9% were employed. The majority were female (92.0%) and white (81.2%). Overall, working participants were approximately 7.9% less productive than healthy individuals. Group comparisons revealed that females experienced greater physical limitations than males (p < 0.05) but had similar time, mental, and output scores. Age younger than 65 was associated with greater impairments of time, mental, and output domains (p < 0.05 for all). Minorities (African Americans, Hispanics, and Asians) experienced significantly less productivity than whites across all categories with the exception that African Americans reported similar time impairments to whites. Productivity scores were inversely related to daily pad use (those using 1- or 2-experiencing higher scores than those using 3 or more), and did not differ between treatment naive and those previously treated (p > 0.05 for all domains). CONCLUSIONS: OAB causes job interruptions, difficulties in adhering to a schedule, physical limitations, impaired concentration, and reduced ability to handle workload. Females with OAB experience more physical limitations than males, and minorities generally experience greater productivity impairments than whites.

Podium Session II

Health Care Use and Policy: Focus on Health Professionals

Identifying Predictors of Off-Label Utilization Patterns of Two Biotechnology Drugs, Recombinant Erythropoietin Alfa and Darbepoetin Alfa: A Multi-Hospital Study

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OBJECTIVES: To identify predictors of off-label utilization of Erythropoietin and darbepoeitin across hospitals in the United States. METHODS: A retrospective database (Solucent®) review was performed on 169,288 discharged patients who received erythropoietin and darbepoeitin across 187 hospitals. Based upon an evidence-based medicine framework, utilization of the two drugs was categorized as “on-label” (approved by the FDA), “off-label-supported” (not FDA-approved but with strong evidence supporting off-label use), and “off-label-unsupported” (minimal literature support for off-label indications). A multinomial logistic regression model clustered by hospitals was used. Model covariates were patient demographics, clinical outcomes, physician specialty, hospital size, teaching status, region, drug dose, and number of administrations. RESULTS: Relative to on-label, physician specialty, patient age group, race, and drug coverage were significant (at the 0.05 level) predictors of off-label use (supported and unsupported). Surgeons were twice as likely to prescribe off-label-unsupported (OFUS) than generalists and four times more likely than specialists. Infants (0–1 years), [RRR-164; 95%CI, 84–319], children (1–17 years), [RRR-2.30, 95%CI, 1.45–3.50], and young adults (18–24 years) [RRR-2.30, 95%CI, 2.07–3.19] were more likely to receive OFUS compared to middle-aged adults (40–59 years), while OFUS prescribing for individuals over 75 years was weakly predictive (RRR=1.2; 95%CI, 1.03–1.6). African-Americans and Native-Americans were twice as likely to receive drugs for off-label-supported (OFS) but half as likely for OFUS use relative to whites. Moreover, Title-V, Worker’s compensation, and self-pay patients were more likely to receive OFUS. CONCLUSIONS: Variations in off-label prescribing among physician specialties may reflect a lack of consensus on practice guidelines. The common use of OFUS prescribing in pediatrics may be explained by the limited clinical trial data on children. Racial differences in OFUS may indicate differing disease prevalence in populations. Knowing causes of off-label prescribing can help decision makers understand the degree to which it is appropriate.

Pharmacist Response to Computer-Generated Drug Therapy Alerts in a Long Term Care Setting

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OBJECTIVES: We implemented a focused drug therapy management intervention aimed at reducing polypharmacy for Medicaid recipients in North Carolina nursing homes. Targeted were patients receiving >18 prescriptions in 90 days. During scheduled monthly home visits, consultant pharmacists providing routine drug regimen reviews also reviewed drug profiles displaying claims-generated drug problem alerts. Pharmacists documented reviews, recommendations and resulting drug therapy changes. Study objectives were to determine: 1) the frequency with which potential drug therapy problems (PDTPs) were found
and persisted following interventions, and 2) the impact of inter-
ventions on quality, and patient drug costs from a payer per-
spective. METHODS: Before-after study with comparison group
design. Medicaid prescription claims data were compared for
three months prior to and following the intervention. RESULTS: In
total, 253 nursing homes, 110 consultant pharmacists, and
6344 patients participated in the study arm, with 5160 patients
remaining at the end of the follow-up period. At baseline, study
group patients used an average of 9.7 prescriptions per month,
costing the NC Medicaid program $517 (USD). There were 5918
recommendations offered for 3262 patients, or an average of
1.88 per patient. At least one profile-related pharmacist inter-
vation was implemented for 72% of patients, about half involv-
ing a switch to a lower cost drug. Two of five alert categories
had highly significant reductions in alert persistence of 10.8%
and 29.7% respectively versus 0.7% and 14.1% in the compar-
ison group. Drug costs for study group patients were $57
lower than comparison group patients at follow-up (p < 0.05).
CONCLUSIONS: A supplemental program of medication
reviews for targeted NH patients resulted in a reduction in the
presence of PDTP alerts and was cost beneficial based solely
on drug cost savings. This intervention may be a model for future
medication therapy management services provided by prescrip-
drug plans under Medicare for patients in long-term
care settings.

PHYSICIAN PRESCRIBING OF SLEEP DISORDER
MEDICATIONS IN UNITED STATES OUTPATIENT SETTINGS:
FACTORS AFFECTING PRESCRIPTION OF HIGH ABUSE
POTENTIAL AND COSTLY MEDICATIONS
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OBJECTIVE: This research was performed to analyze selected
socioeconomic and clinical factors relating to both physicians
and patients associated with physicians’ prescribing of expensive
medications and medications with abuse potential side effects
for treatment of sleep difficulties in a nationally representative
sample of outpatient physician visits in the United States.
METHODS: A multivariate logistic regression method was used
to analyze the 1996–2001 National Ambulatory Medical Care
Survey data to determine the patient and physician factors asso-
ciated with a prescription for expensive medication and medica-
tions with abuse potential side effects in outpatient visits.
RESULTS: From 1996 to 2001, about 94.6 million sleep-
difficulty related visits were made to outpatient physician offices
in the United States. Forty eight percent (45 million) of sleep-
difficulty related visits received prescription for medication
therapy only. Patients over 65 years of age were 44% less likely
(OR: 0.56, 95% CI: 0.35–0.90) to receive an expensive medica-
tion prescription than patients aged 18–34 years (reference
group). Hispanic patients were 56% less likely to receive an
expensive medication prescription than Non-Hispanic patients
during their visits (OR: 0.44, 95% CI: 0.22–0.88). Male patient
visits were 39% less likely than female patient visits to result in
receipt of medication with abuse potential among patient visits
receiving medication therapy (OR: 0.61, 95% CI: 0.45–0.81). In
addition, patients with mental co-morbidities were 80% more
likely to be associated with receipt of a prescription of medica-
tions with abuse potential than patients with no mental co-
morbidities (OR: 1.80, 95% CI: 1.31–2.47). CONCLUSIONS:
This study indicated that patient’s age and ethnicity influence
physician prescribing of expensive medications for treatment of
sleep difficulties. In addition, increased probability of receipt of
medication with abuse potentials in female gender is of concern,
when safer alternative medications with lower abuse potentials
are easily available.

HP4
PRIMARY CARE AND GATEKEEPER MODELS IN GERMANY—
WHAT DO THE PATIENTS WANT?
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OBJECTIVES: To understand and quantify the consumers’
choice and preferences for the heavily discussed and politically
promoted introduction of gatekeeper models in primary care as
a measure of effective cost containment. Furthermore, to explore
which of the patients’ segments could be addressed by which
value proposition, which design elements to use and what kind
of incentive structures to create. METHODS: Applying stochas-
tic methods, a representative sample of 3024 people from the
health insured population was taken and segmented according
to four basic dimensions (age, gender, income, and insurance
status). About 1000 interviews were performed in a telephone
survey. Participants were asked 10 questions about their knowl-
edge on primary care and gatekeeper models. Other questions
addressed aspects such as design elements of potential gatekeeper
models, parameters for the interviewee’s choice on a potential
family doctor, demands on the quality of a family doctor, and
incentive structures. RESULTS: The participants showed differ-
entiated answer profiles. Older and currently ill people were
significantly better informed concerning gate keeper models in
primary care. In total, 88% already go to their family doctor and
60% use their family doctor as the primary address and would
participate at a gatekeeper model without extra incentives. The
demands on family doctors are dependent on age and gender.
Neighbourhood and personal experience as well as quality and
service level are key factors. CONCLUSIONS: It can be con-
cluded that even without being well informed and without
explicit incentive structures, the insured already behave accord-
ing to the principles of primary care and gatekeeper models,
limiting the political effect of reorganising patient streams
in ambulatory care. Furthermore, insurance companies should
investigate consumers’ choices in primary care before setting up
sophisticated incentive systems.

Methods and Concepts in Patient-Oriented Research

TRAJECTORIES OF EQ-5D QUALITY OF LIFE UTILITY SCORES
FOR 10,000 SCHIZOPHRENIA OUTPATIENTS OVER 2 YEARS: A
REPORT FROM THE SOHO STUDY
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OBJECTIVES: Extensive longitudinal data are required to char-
acterize the outcomes of serious mental disorders. Statistical
methods for profiling individual differences in clinical and social
outcomes, and the impact of treatment have expanded over the
past decade, are now implemented in user friendly software. Our
aim was to characterize individual trajectories in patient-rated
quality of life scores recorded over two years. METHODS: The
sample comprised 10,000 outpatients with schizophrenia partici-
patating in the Schizophrenia Outpatient Health Outcomes
(SOHO) observational study of health outcomes of antipsychotic
treatment which was conducted in 10 European countries.
SOHO enrolled schizophrenia outpatients who were initiating
or changing their antipsychotic medication. The outcome was