OBJECTIVES: Of the many routes of drug administration, some are more acceptable to patients (e.g., oral vs. injection, nasal vs. pulmonary routes), and are usually preferred if an oral over an injectable medication, all else being equal. Patient preference may be expressed in terms of health and non-health-related measures, which include: health technology-related attributes (including ergonomics, ease of use, comfort and reliability [e.g. needle phobia in patients’ perceptions of administration]), and adverse reactions attributable to the route of administration. Preferences may result in process-related (dis)utility, and be revealed as (non)adherence. This review aims to examine, for example when a choice is presented, patients’ preferences for subcutaneously administered, self-injectable medications, compared with other routes of administration for the same medicines.

METHODS: Ten electronic databases were searched for publications published between 2002 and 2012 using terms pertaining to methods of administration, preferences and adherence. For inclusion was determined through reference to specific criteria by two independent reviewers. RESULTS: Of the 1,146 papers screened, 70 met the inclusion criteria. Further, all studies that used any of the methods of administration for insulin and treatments of paediatric growth disorders and multiple sclerosis. Pen devices were significantly preferred to needle & syringe administration in 11 out of 12 studies – particularly with respect to ergonomics, convenience and portability; however, preferences between autoinjectors and pen devices were less pronounced. Oral administration was preferred to subcutaneous administration in 6 studies (but did not reach statistical significance), as was inhaler therapy (favouring significantly in 3 out of 4 studies). CONCLUSIONS: The review identified a number of studies, which revealed important differences in patient preference between methods and routes of drug delivery. Further evidence is required to support the notion that preference translates to better adherence.

PH345

THE EFFECT OF MEDICAL DEVICES WITH DOSE-MEASURE AND REMINDER FUNCTIONS ON TREATMENT ADHERENCE, CONFIDENCE AND DISEASE SELF-MANAGEMENT

Hall R1, Harald-Kongsø J2, Humphrey L1, Willgress T1

OBJECTIVES: Adherence to treatment is an important issue in the management of chronic diseases and an indicator of patients’ ability to self-manage their condition. Some medical devices have been designed to help support patients’ self-management and adherence by including dose and reminder functions. This literature review explored the role and impact of these devices on patients’ adherence to treatment, confidence and disease self-management.

METHODS: A search of Medline, Embase and PsycInfo was performed to identify articles published in English from 2003-2013, which studied the effect of devices with memory and/or reminder functions on treatment adherence, confidence and self-management. The main attributes of the abstracts selected for inclusion and full-text review, were summarized.

RESULTS: The database searches yielded 490 abstracts. Of the 47 meeting the inclusion criteria, 32 were retained. The articles explored the impact of memory and/or reminder devices on treatment adherence, device usability and users’ (patients, health care professionals [HCPs] and caregivers) relationship and attitudes towards the devices. Devices with memory and/or reminder functions were found to improve self-reported and electronically-monitored treatment adherence in prophylactic medication use (e.g. contraceptives) and a range of chronic diseases including HIV, diabetes and asthma. Memory functions were considered to have improved patient management by improving patients’ awareness of their treatment. Of particular value was that memory and/or reminder functions provided dose-history information, enhanced patients’ confidence with, and ability to manage their medication and condition, and helped patients forget or incorrect medication dosing. CONCLUSIONS: The incorporation of memory functions alone and in combination with reminder features in medical devices can improve patient’s adherence, confidence and self-management. This can lead to improvements in health outcomes and clinical outcomes, thereby offering clinical and economic value. This review highlights the importance of conducting further qualitative and quantitative research in this area to fully understand the value of these types of devices to patients and HCPs.

PH336

COMPARISON OF ELDERLY ADULTS BY NUMBER OF RX MEDICATIONS USED:

RESULTS FROM THE NATIONAL HEALTH AND WELLNESS SURVEY ACROSS SEU COUNTRIES

Annunziata K1, Wheeler G2, Sternbach N1

OBJECTIVES: Compliance with medications among elderly patients is particularly important, as the consequences may be quite serious. Results suggest that use of three or more medications may put a considerable burden on elderly patients and may affect their compliance. This analysis profiles elderly patients across SEU by the number of medications currently used and their compliance related behaviors. Combination products were considered as one prescription medication. METHODS: Results are drawn from the 2011 SEU National Health and Wellness Survey, a nationally representative, self-administered survey. Respondents were adults aged 18 and over from France, Germany, Italy, Spain and UK. This analysis focuses on adults age >65. Physical and mental quality of life was measured using the SF12v2 scale. Adherence was measured using the Morisky Medication Adherence Scale (MMA-5) and impact scale. RESULTS: OUT of the total sample of age >65 (n=10,612), 38.7% of elderly adults across SEU currently use four or more prescription (Rx) medications and 28.9% use five or more Rx medications. Activity impairment is greater among those using 4+ medications (38.6 vs. 22.7 vs. 16.0). Emergency room visits and hospitalizations are also higher. This group appears to be more proactive in engaging in cost-saving behaviors to alleviate some of the treatment costs in the past 6 months (30% vs 24% vs 15%) (e.g., their past experience of receiving care (yes or no). These

PH340

MEASUREMENT OF SOCIETAL MEDICAL CARE PREFERENCES WITH THE SAME COST PER QALY: A DISCRETE CHOICE STUDY

Shinoya Y1, Saito S2, Shimozuma K2, Kodama S7, Noto S5, Fukuoka T

OBJECTIVES: To adapt the discrete choice experiment methodology to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments. The discrete choice experiment methodology is a well-tested and widely used method to measure patients’ preferences for high cost medical care treatments.
factors were orthogonally combined to construct 16 patient profiles. All assumed medical care had the same ICER (cost per QALY). Respondents were randomly assigned to two of the 16 profiles and asked which one of the patients should preferentially receive treatment from a societal point of view, given a limited medical resource. Respondents were stratified by age and sex. RESULTS: A total of 300 respondents were collected from 50 sites across Japan. The most preferred factor was "younger patient (a)", followed by "treatment (b)" and "severe health state (c)". We found for "no past experience of care (d)". Public preference for medical care for elderly patients increased with increasing age. University-graduated people tended to prioritize care for patients who are younger and in severer conditions.

CONCLUSIONS: Our survey revealed that public medical care preferences are influenced by factors such as age, even with the same cost per QALY. Based on an economic evaluation, age is an important factor for decision-making that reflects societal preferences.

PIH41

OBJECTIVES: To evaluate the prevalence of PIP in an older Irish population and to investigate its association with IADL impairment.

METHODS: A retrospective cohort study of 2,523 participants in the Irish Longitudinal Study on Ageing (TILDA) aged ≥65 years with linked medication dispensing history from a national pharmacy claims database was conducted. Exposure to PIP in the 12 months prior to assessment was defined as a total score (p < 0.05). Overall, 37.6% (Beers’ criteria) and 23.5% (ACOVE indicators) participated in ≥2 PIP indicators were significantly more likely to have an IADL impairment (adjusted OR = 1.91, 95% CI = 1.53-2.38) compared to no PIP. Similar associations were found for the overall prevalence of PIP was the highest using the Beers’ criteria (57.29%), compared to prevalences of 37.64% (Beers’ criteria) and 23.5% (ACOVE indicators). Participants with ≥2 PIP indicators were significantly more likely to have an IADL impairment (adjusted OR = 1.91, 95% CI = 1.53-2.38) compared to no PIP. Male sex, current smoking, and past PIP were also significantly associated with IADL impairment:

CONCLUSIONS: PIP in the elderly is highly prevalent and exposure to PIP is independently associated with increased risk of having IADL impairment. This suggests the importance of considering appropriateness when prescribing medicines in order to minimize adverse outcomes.

PIH42

OBJECTIVES: To evaluate the prevalence of PIP in an older Irish population and to investigate its association with IADL impairment.

RESULTS: The overall prevalence of PIP was 66.89% (n = 1,372). Of these 514 (20.60%) had one instance of PIP while 858 (41.83%) had two or more. Prevalence was highest using the Beers’ criteria (57.29%), compared to prevalences of 37.64% (Beers’ criteria) and 23.5% (ACOVE indicators). Participants with ≥2 PIP indicators were significantly more likely to have an IADL impairment (adjusted OR = 1.91, 95% CI = 1.53-2.38) compared to no PIP. Male sex, current smoking, and past PIP were also significantly associated with IADL impairment:

CONCLUSIONS: PIP in the elderly is highly prevalent and exposure to PIP is independently associated with increased risk of having IADL impairment. This suggests the importance of considering appropriateness when prescribing medicines in order to minimize adverse outcomes.