RESULTS: Nearly all the medical innovations studied will result in better health and longer life, but they will likely increase, not decrease, Medicare spending. One exception, however, concerns innovations that improve health behavior – e.g., treatments that reduce the rate of obesity. Such treatments are likely to be highly cost-effective – in many cases costing less than $10,000 per life-year saved. Similarly, prevention efforts focused on the most important risk factors for disease, especially those requiring costly treatments, could be very cost-effective. **CONCLUSIONS:** Future Medicare spending through the Baby-Boomer generation (through 2030) will increase, despite the introduction of medical innovations that reduce disability and improve outcomes. With the possible - but important - exception of reducing obesity, Medicare costs will dramatically increase consequent to the overriding impact of the demographic shifts in the elderly population. Health policy makers need to incorporate these findings in their health policy initiatives.

PIH25

CLINICAL AND ECONOMIC OUTCOMES ASSOCIATED WITH EARLY COMBINED ESTROGEN AND PROGESTOGEN HORMONE THERAPY FOR POST-MENOPAUSAL WOMEN

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OBJECTIVES: Compare clinical and economic outcomes between post-menopausal women treated with combined estrogen and progestogen hormone therapy (HT) within 1 and 1-2 years after diagnosis. **METHODS:** A retrospective analysis of women age 45 or older from a large U.S. health plan (April 2002-September 2010) was conducted. The first HT prescription during the identification period (April 2005-September 2008) was identified as the index date. Patients were selected if they initiated HT treatment within 2 years of menopause diagnosis, and had 3 years of continuous health plan enrollment before (pre-period) and 2 years after the index date (post-period). Patients with evidence of post-period pregnancy or pre-period other HT treatment were excluded. Two cohorts were created based on HT initiation date (Cohort A: HT initiated within 1 year of diagnosis; Cohort B: 1-2 years after diagnosis). Propensity score matching (PSM) was used to adjust for baseline differences in age, region, procedure used, comorbidities, and healthcare utilizations during the pre-period. **RESULTS:** Among 4268 eligible patients, 69.3% (N=2956) were included in Cohort A and 30.7% (N=1871) in Cohort B. After PSM, 1310 patients from each group were matched. Patients prescribed HT within 1 year of menopause diagnosis (Group A) were less likely to have Dual-Energy X-RAY Absorptiometry (DEXA) scans and osteopenia than patients treated between 1-2 years after menopause diagnosis. In addition, patients with earlier treatment showed a higher medication possession ratio (MPR) (0.49 vs. 0.46, p=0.272). Healthcare costs and utilizations remained similar, except patients with early HT treatment had significantly lower emergency room visit rates (22.9% vs. 26.5%, p=0.033) than patients with late HT treatment. **CONCLUSIONS:** Patients initiating HT within 1 year of menopause diagnosis had fewer comorbidities, directionally higher MPR but not significant, and lower emergency room visit rates than women initiating HT between 1-2 years. Other clinical and economic outcomes were similar.

PIH26

PUBLIC FUNDING FOR INFERTILITY TREATMENTS IN CANADA: ELIGIBILITY AND DEMAND FOR IVF IN CANADA

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OBJECTIVES: To identify the potential size of the population in Canada eligible for infertility screening as a prerequisite to publicly provided funding, and to estimate the associated costs. **METHODS:** Using the Canadian Fertility Cost Model framework, an age-specific decision model was developed to estimate the potential size of the Canadian population eligible for infertility screening. Based on the number of women presenting for annual comprehensive general assessments to their family physicians, and published age-specific data on the number of women without children, we estimated the number of Canadian couples eligible for infertility screening. The total cost of screening was calculated using sex-specific infertility screening costs. The potential number of live births was also estimated. Sensitivity analyses were performed. All costs were expressed in 2009 Canadian dollars. **RESULTS:** Based on the number of women who undergo an annual physician general assessment in Canada, the number of women eligible for infertility screening was estimated. According to published studies around 50% of infertile women might seek medical assistance; resulting in approximately 75,000 women aged 30-45 being screened. Assuming 50% of their partners would come for screening, 37,500 males would be screened for infertility. The annual cost of screening has been estimated at $10.6 million. The resulting number of live births would be 15,800. The proportion of total screening cost attributed to women aged 30-34, 35-39, and 40-45 is 36%, 28% and 36%, respectively. The proportion of total live births in each age group is 51%, 31% and 18%, respectively. **CONCLUSIONS:** We estimated the potential costs of infertility screening, a prerequisite to publicly provided infertility treatments. Recent studies of selected European countries have established that public subsidy of IVF might represent sound fiscal policy, and that lifetime future tax revenues over an average lifetime of an IVF offspring might return a positive net value.

PIH27

WOULD SOCIETAL COSTS IN HEALTH ECONOMIC ANALYSES INFLUENCE DECISION MAKING? HYPOTHETICAL ANALYSES FOR GERMANY AND FRANCE

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OBJECTIVES: The objective of this study was to investigate the societal costs in employed patients not able to work due to chronic, long-term, or terminal illness in Germany and France for potential inclusion in health economic models and hence influence on decision making. **METHODS:** Societal costs were investigated by collecting and analysing labour costs, disability benefit and home care benefits in Germany and France for employed patients. Costs were derived from publicly available literature or databases. The costs were analysed over 1, 3 and 5 year time horizons. **RESULTS:** The analysis showed that public costs could play an important role in health economic analyses in Germany and France. Productivity loss, disability pension and home care benefit during the first year of sickness were on average €41,224 per employed patient in Germany. It was assumed that patients did not work during the year at all. The societal costs were €44,952 in France per employed patient for the first year of sickness. The year 3 per employed patient cumulative costs in Germany and France were €144,280 and €158,464, respectively. The year 5 per employed patient cumulative costs in Germany and France were €254,205 and €271,975, respectively. **CONCLUSIONS:** Societal costs associated with long term sickness are not insignificant in Germany and France. Although indirect costs are currently not included as part of reimbursement criteria in Germany and France, this analysis suggests that the inclusion of these should be considered for standard health economic analyses where possible. The results are of interest when comparing two treatment regimens where patients have differing ability to work either during or after the treatment, or where a majority of patients are employed. The overall perspective could support decision making beyond assessment of clinical benefits alone.

PIH28

THE INTRINSIC VALUE OF EXTENDED-RELEASE DRUGS

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OBJECTIVES: Conventional pricing theory suggests that therapies with additional benefits over an existing option may garner a higher price to account for this incremental value/benefit. For reformulated therapies such as extended-release (ER) products, common patient benefits (e.g. potentially reduced pill burden and side effects) should provide enough incremental benefit to warrant a price higher than the immediate-release (IR) formulation of the same molecule. The objective of this study is to quantify the intrinsic value of ER formulations by exploring the price comparison between ER and IR formulations. **METHODS:** To identify therapies of interest, a search of the Epocrates drug database was conducted and all therapies with names indicative of reformulated products were analyzed. The price of each ER product was captured for the first day of market availability and compared to the branded IR formulation. An analysis of IR generic entry and the time elapsed from branded IR launch was conducted to determine if these confounding factors explained the observations. **RESULTS:** Of the 19 ER products that were analyzed, the majority (58%) had prices lower than the IR product. Only one-quarter (26%), had prices higher than the IR product and the remaining products had equivalent prices. Generic entry did not correlate with the observed price comparisons between ER and IR formulations. **CONCLUSIONS:** The percentage price difference between branded ER and branded IR products did not uncover a standard incremental value that would indicate there is an intrinsic value provided by ER formulations. An analysis of generic entry failed to show that a reduced price reference may be a factor for products with lower ER prices. It is likely that pricing decisions for the ER products included unique price sensitivity studies and considered confidential corporate strategy, as is best practice.

INDIVIDUAL'S HEALTH – Patient-Reported Outcomes & Patient Preference Studies

PIH29

ADHERENCE AMONG INITIATORS AND SWITCHERS ON GENERIC, PREFERRED AND NON-PREFERRED BRAND THERAPIES

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OBJECTIVES: The purpose of this study was to compare brand and generic medication adherence in key therapeutic classes, particularly among the generic, and the non-preferred and preferred brand initiators. **METHODS:** CVS Caremark pharmacy claims data (July 1, 2008–July 1, 2011) were analyzed for patients who initiated therapy at retail. We compared medication persistence and compliance over a 12-month period in 4 therapeutic classes: angiotensin-converting enzyme inhibitors (ACEIs), angiotensin-II receptor blockers (ARBs), HMG-CoA reductase inhibitors (statins), Biguanides. To qualify for the study, the patients had to be continuously eligible for benefits a total of 18 months, with the additional 6 months to identify initiators. We compared Medication Possession Ratio (MPR), Medication Persistence, Proportion of Days Covered (PDC), and the First Fill Persistency (FFPR) among generic, non-preferred and preferred brand utilizers, on the therapeutic class level based on GPI-4 codes (ACEIs:3610- ARBs:3615- STATINs:3940- Biguanides:2725). Bi-variate and multi-variate analyses, including linear and logistic regression were conducted using SAS Version 9.1 with SAS/STAT. **RESULTS:** A total of 1.1 million patients met inclusion criteria. Compared to brand utilizers, generic utilizers' persistency over 12-month was 3% ($p<0.001$) higher; their adjusted 12-months MPR was 2.65% ($p<0.001$) higher. Generic utilizers were also 17% ($p<0.001$) more likely to achieve optimal adherence (MPR > 80%), and were 18% ($p<0.001$) more likely to remain on therapy after the first fill. The utilizers of non-preferred brands had a 1%-5% lower persistence over a 12-month period than did patients on preferred brand medications. Finally, those who started on a brand and switched to a generic had 2-5% higher PDC, and 0.6%-2.5% ($p<0.001$) higher 12-months persis-