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OBJECTIVES: Rotavirus is the most common cause of severe diarrhoea worldwide. This study was designed to evaluate the cost-effectiveness of rotavirus immunization in Vietnam taking into account herd immunity and patterns of breastfeeding. The affordability of implementing universal rotavirus immunization was assessed based on both GAVI-subsidized and market vaccine prices for the next 5 years from the perspective of the Vietnamese health care system. **METHODS:** An age-structured birth cohort model for Vietnam was developed to compare two strategies of no vaccination and universal rotavirus vaccination in 2011. A lifetime time horizon was used with monthly time cycles for those under one year and annually thereafter. The analysis was performed under three breastfeeding scenarios: 1) 100% exclusive breastfeeding for children under 6 months; 2) 100% partial breastfeeding, and 3) 100% no breastfeeding. Herd immunity was explored in all scenarios. Monte Carlo simulations were used to examine the acceptability and affordability of the immunization strategy. **RESULTS:** Rotavirus immunization would effectively reduce severe cases of rotavirus during the first 5 years of life. Herd immunity makes rotavirus vaccination a cost-saving strategy under the GAVI-subsidized vaccine price in the case of partial breastfeeding and a cost-effective strategy in all breastfeeding scenarios under the market vaccine price. Affordability results showed that at the GAVI-subsidized vaccine price, rotavirus vaccination is affordable. **CONCLUSIONS:** This is the first study in developing countries considering herd immunity under rotavirus vaccination. If the indirect effect were considered, vaccination would become a cost-saving strategy. Given the high mortality rate of diarrhea in children under-five-years of age, our findings show rotavirus immunization to be an effective and “must-do” prevention strategy. Vaccination, however, only becomes affordable if Vietnam receives GAVI’s financial support. In the next five years, Vietnam will need financial support from international organizations to implement rotavirus vaccination.

PIH7

IMMUNIZATION PROVIDERS’ COST AND VACCINATION COST IN IRAQ

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OBJECTIVES: To evaluate the activities of immunization providers in terms of activities time and cost, and to calculate the immunization doses cost. **METHODS:** Time-motion and cost analysis study design was used. Five public health clinics in Mosul-Iraq participated in the study. Fifty (50) vaccine doses were required to estimate activities time and cost. Micro-costing method was used; time and cost data were collected for each immunization-related activity performed by the clinic staff. A stopwatch was used to measure the duration of activity interactions between the parents and clinic staff. The immunization service cost was calculated by multiplying the average salary/min by activity time per minute. **RESULTS:** The average time for child registration was 6.7 minutes per each immunization dose, and the physician spent more than 10 minutes per dose. Nurses needed more than five minutes to complete child vaccination. The total cost of immunization activities was 1.67 US\$ per each immunization dose. Measles vaccine (fifth dose) has a lower price (0.42 US\$) than all other immunization doses. **CONCLUSIONS:** The time spent on physicians’ activities was longer than that spent on registrars’ and nurses’ activities. Physician total cost was higher than registrar cost and nurse cost.

INDIVIDUAL’S HEALTH - Patient-Reported Outcomes & Patient Preference Studies

PIH8

MEDICATION COMPLIANCE IN ERECTILE DYSFUNCTION (ED) PATIENTS WHO REPORTED SATISFACTORY RESTORATION OF ERECTILE FUNCTION (EF) AFTER ORAL TREATMENT

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OBJECTIVES: To explore how many patients discontinue oral treatment despite satisfactory restoration of their erectile function (EF) and to identify the associated characteristics to discontinuation of medication. **METHODS:** Erectile Dysfunction (ED) patients treated between 2009 and 2011 in 34 urology clinics in Korea were studied. Restoration of EF after taking medication more than 4 times was asked to patients. 882 patients who reported satisfactory restoration of EF were surveyed with a questionnaire to collect data regarding patient compliance of medication, demographic, clinical, partners’ characteristics and medication discontinuation reasons. Data on ED etiology and total medication period were collected via medical chart review. We used the 857 eligible data of discriminating discontinuation. **RESULTS:** Total of 857 ED patients aged 53.6 ± 11.8 years had ED oral treatment for a mean period of 25.3 ± 24.7 months. 251 (28.5%) patients discontinued oral treatment for the last one year, and patients aged < 50 years, living in rural areas and with monthly income < 4 million KRW tended to more discontinue their medication ($P < 0.05$, respectively). Lower sexual libido, shorter treatment period, psychogenic cause of ED, and experiencing low treatment efficacy were also associated factors with discontinuation ($P < 0.05$, respectively). Partners with characteristics of unawareness of patient’s ED treatment and experiencing poorer treatment satisfaction increased patients’ treatment discontinuation ($P < 0.05$, respectively). Most

frequent reasons for discontinuing treatment were unwillingness to have medication-dependent intercourse (31.0%), spontaneous recovery of EF (30.2%) and economic burden of medication (26.7%). **CONCLUSIONS:** Approximately one third of ED patients tended to discontinue the oral treatment while they reported satisfactory restoration of EF. Both patients’ and partners’ characteristics affected patients’ medication compliance in ED patient.

PIH9

ASSOCIATION BETWEEN HEALTH CARE PROVIDERS AND IMMUNIZATION COMPLIANCE IN IRAQ

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OBJECTIVES: To identify the immunization providers’ characteristics associated with immunization rate in children younger than two years. **METHODS:** A cross-sectional and a cluster sampling design were implemented; 528 children between 18 and 70 months of age were sampled in five public health clinics in Mosul-Iraq. Providers’ characterizations were obtained. Immunization rate for the children were assessed. Risk factors for partial immunization were explored using both bivariate analyses and multi-level logistic regression models. **RESULTS:** Less than half of the children had one or more than one missed dose, considered as partial immunization cases. The study found significant associations of immunization rate with provider’s types. Two factors were found that strongly impacted on immunization rate in the presence of other factors; birthplace and immunization providers’ types. **CONCLUSIONS:** Improving communication between parents and immunization provider will engage the parents in decision making, clarify the importance of immunization, and highlight the value of immunization compliance.

PIH10

UTILITY VALUES FOR USE IN HEALTH CARE DECISION MAKING FOR OLDER FRAIL ADULTS

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OBJECTIVES: To compare the utility measurements and quality adjusted life years gained obtained from the EQ-5D and ICECAP-O instruments in a group of older frail people receiving a community program. **METHODS:** Prospective observational cohort study with baseline and repeated measures follow up of 357 participants and 122 caregivers. Participants were receiving the transition care program, a clearly defined post acute discharge program consisting of case management, medical and nursing support, rehabilitation services and personal and domestic care in one of six community sites in two states of Australia. Quality of life was measured four time points over six months. **RESULTS:** The ICECAP-O yielded consistently higher utility values at all time points than the EQ-5D. Admission utility scores were 0.55 (0.20) and 0.75(0.16) and at 6 months were 0.60 (0.28) and 0.84 (0.25) for the EQ-5D and ICECAP-O respectively. Using the area under the curve method, the QALYs gained from baseline over six months were modest; however the ICECAP-O gave higher overall QALYs gained than the EQ-5D. The increased QALYs gained with the ICECAP-O could have implications when using it in an economic evaluation of this type of service. **CONCLUSIONS:** The EQ-5D has been criticised for its potential lack of responsiveness particularly when only small health improvements are expected. The ICECAP-O may represent a better choice for use in evaluating community based programs for older frail people.

PIH11

A SURVEY EVALUATING GENERAL PUBLIC PERCEPTIONS TOWARDS TRADITIONAL MEDICINES USED FOR APHRODISIAC PURPOSE

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The use of herbal medicine for aphrodisiac purpose has been increasingly in both developing and developed country. Within this context, it is little known regarding the factors contributing for the high usage of these preparations among general public. **OBJECTIVES:** To evaluate public perceptions towards the use of traditional products with aphrodisiac properties. **METHODS:** A cross-sectional study was undertaken among potential respondents selected from the state of Penang Malaysia. Totally, 392 respondents were included in the study. Descriptive statistics including frequencies and percentage were used for data analysis. Frequencies of demographic information of respondents are tabulated and expressed in bar chart and pie chart. **RESULTS:** The study showed that most of the respondents (46.94%) agreed that traditional medicines for aphrodisiac purpose are easily available in the country. Moreover, 40.31% of the respondents agreed that traditional medicine with aphrodisiac purpose is cheaper than modern medicine. **CONCLUSIONS:** There is a need for health care profession to explore in the field of traditional medicine in order to safeguard patients health. The study showed that the public have limited knowledge towards usage of traditional aphrodisiac medicine.

PIH12

A DESCRIPTIVE STUDY OF HEALTH RELATED QUALITY OF LIFE AMONG GENERAL POPULATION OF QUETTA, PAKISTAN

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