OBJECTIVES: The aim of this study was to analyze the tuberculosis-related medical resource consumption pattern among new smear positive pulmonary tuberculosis (PTB) patients. We also estimated the cost of tuberculosis (TB) treatment from the perspective of provider and patient, and identified the significant cost driving factors.

METHODS: All new smear positive PTB patients who were registered at the chest clinic of Ulaanbaatar General Hospital, between March 2010 and February 2011, were invited to participate in the study. Provider sector costs were estimated using bottom-up, micro-costing technique. For the calculation of costs from the patients’ perspective, medical records of the patients who agreed to participate in the study (n=37) were reviewed after the intensive phase and at end of their treatment by a trained nurse. Predictive Analysis SoftWare was used to analyze the data. RESULTS: During the study period, 226 patients completed the treatment. However, complete costing data was available for 212 patients. The most highly utilized resource was chest X-rays followed by sputum smear examination and non-specific laboratory tests. Only a smaller proportion of the patients were hospitalized. The total cost of treating a patient constituted 55.3% (USD 401.90) of the total average cost of TB treatment. In multiple linear regression analysis, prolonged treatment duration (i.e., > 6 months) was the only predictor of higher provider sector cost, whereby higher patient sector cost was associated with higher household income and persistent cough at the end of the intensive phase of the treatment. CONCLUSIONS: The average provider sector cost was 1.45 times higher (USD 325.35 versus USD 225.00) than the budget allocated by the Ministry of Health for the treatment of a TB case in Malaysia. The expenses borne by the patients and their families accounted for 5.71% of their annual family income, hence not catastrophic.

RR3 AWARENESS AND PREVENTION OF CHRONIC DISEASES IN JAPAN
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OBJECTIVES: Chronic diseases are common and costly to society, but often preventable. This study focuses on better understanding awareness and prevention of chronic diseases in Japan. METHODS: This study included data for the 2012 Japan Wellness Survey, a cross-sectional, Internet-based survey of adults (18+ years) who provide information on their comorbidities, and health care behaviors. Awareness of chronic diseases were assessed using the following question: “Which of the following conditions are you aware of (COPD, depression, diabetes, hypertension, dyslipidemia, and osteoporosis)?”. Prevention was assessed with the following question: “Which conditions do you take steps to prevent (heart attack, heart problems/stroke, mini-stroke, diabetes, osteoporosis)?” Risk groups of COPD, depression, diabetes, hypertension, dyslipidemia and osteoporosis were calculated. Results were weighted/projected to represent the total population based on the Census Bureau. RESULTS: In Japan, 19.8%, 79.1%, 78.4%, 77.6%, 71.5%, 71.5%, and 62.4% were aware of COPD, depression, diabetes, hypertension, dyslipidemia, and osteoporosis, respectively. Within the risk groups only 25.1%, 19.8%, 79.1%, 78.4%, 77.6%, 71.5%, and 62.4% were taking steps to prevent osteoporosis. The COPD risk group also 36.5% quit smoking and 41.8% of the depression risk group spoke to a health care provider about their condition. CONCLUSIONS: Within the diabetes risk groups 46.8% were taking steps to prevent diabetes. Only 65.0% of hypertension and 77.6% of dyslipidemia risk respondents were taking steps to prevent heart problems. In the osteoporosis risk group only 15.5% were taking steps to prevent osteoporosis. CONCLUSIONS: Data suggests a need for education programs to build awareness of chronic diseases in Japan. Due to the lack of knowledge of chronic diseases in Japan, prevention is limited especially amongst the at-risk groups.

RR4 COST-UTILITY ANALYSIS OF VARENICLINE VERSUS EXISTING SMOKING CESSATION STRATEGIES IN KOREA
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OBJECTIVES: The purpose of this study was to examine cost-effectiveness of varenicline, a pharmacotherapy developed to support smoking cessation, versus currently available alternatives. METHODS: Two analytic decision tree models were used to simulate effectiveness of varenicline versus bupropion and varenicline versus placebo as first-line treatment for smoking cessation in adult population. The models were developed using decision analytic software and were validated using literatures and expert opinions. The models were generated using clinical data from studies using varenicline as first-line treatment for smoking cessation. The difference between the two models was that the varenicline model included the cost and effectiveness of the maintenance treatment phase. RESULTS: The incremental cost of varenicline versus placebo was £27.40 and the incremental effectiveness was 0.26 quit-days. The ICER is £105.35 per quit-day. CONCLUSIONS: Varenicline is a cost-effective treatment for smoking cessation for current smokers and ex-smokers. It is recommended as a first-line treatment for smoking cessation.

RESEARCH POSTER PRESENTATIONS – SESSION I

RESEARCH ON METHODS STUDIES
RESEARCH ON METHODS – Clinical Outcomes Methods

PRM1 HISTOCULTURE DRUG RESPONSE ASSAY IN COLORECTAL CANCER
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OBJECTIVES: Anti-cancer chemotherapeutic pharmaceutical agents have some toxic effects to normal cells. Therefore, the main factors to increase therapeutic effect of the drug are specificity and anti-tumoral and anti-cancerous agents. Cancer cells are having been studied in many ways by using cell culture technologies in developed countries. We aimed to determine the chemosensitivity of colorectal cancer cases. METHODS: From February 2013 through February 2014, Histoculture drug response assay data were obtained from 6 colorectal cancer surgical specimens held in State Central Hospital. Cultures and culture media were prepared by R. Hoffmans methods. We examined chemosensitivity of the tissue to carboplatin, irinotecan, doxorubicin, 5-fluouracil and oxaplatin. Cutoff inhibition rates were determined with each drug for colorectal cancer and were used to calculate predictabilities for chemosensitivity responses. We also prepared double samples from the culture and made histologic and cyto logic and antibody results consistent. RESULTS: The availability of the histoculture drug response assay was at 83.3%. Predictability including true-positive and true-negative rates of 83.3% and 100% was observed. CONCLUSIONS: Cancer cells deaths are dependent from dosages of the candidate histoculture drug response assay data and it shows it is possible to use drug sensivity methods in oncologic clinical practice.

PRM2 ROLE OF CORTICOSTEROIDS USE IN ARDS: COMPARISON OF SYSTEMATIC REVIEW AND META-ANALYSIS
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OBJECTIVES: Our study explores the routine use of corticosteroids for management of acute respiratory distress syndrome patients in adult population. METHODS: English language, randomized control trial and observational studies were searched using different databases like the Cochrane Central Register of Controlled Trials, Cochrane database of systematic reviews, PUBMED, SCOPUS, SCIENCE DIRECT (Key terms: corticosteroids, methylprednisolone, hydrocortisone, dexamethasone and acute lung injury, adult respiratory distress syndrome, acute respiratory distress syndrome, steroid, respiratory failure, septic shock, mechanical ventilation). We used standard search terms (e.g., adult respiratory distress syndrome) for PubMed. The literature search was also performed on Medline (1950–2017) and EMBASE (1980–2017). RESULTS: A total of 17 clinical trials were included, in which 7 clinical trials on ARDS patients using variable dose and duration of steroids met the inclusion criteria. The Mantel-Haenzel odds ratio of corticosteroids decreasing mortality in observational studies was 0.552; 95% CI 0.134 to 2.278. The odds of corticosteroids associated infectious complications in patients of randomized, controlled trials was 1.1. In observational studies 0.557 to 2.047 while in observational studies was 1.662, 95% CI 0.981 to 2.816. CONCLUSIONS: A definitive role of corticosteroids in ARDS has not been established. However, current data from studies shows the result favouring use of corticosteroids in ARDS by decreasing the mortality associated. However, use of steroids is associated with a slight risk of increased infectious complications.

PRM3 ACUTE RESPIRATORY DISTRESS SYNDROME: TREATMENT PATTERN AND OUTCOME ANALYSIS
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OBJECTIVES: Acute respiratory distress syndrome (ARDS) is an acute hypoxemic respiratory failure. It is the most severe form of acute lung injury. The treatment of ARDS is generally supportive and there is ambiguity in the role of glucocorticoids in management of Acute Respiratory Distress Syndrome in adult population. METHODS: English language, randomized control trial and observational studies were searched using different databases like the Cochrane Central Register of Controlled Trials, Cochrane database of systematic reviews, PUBMED, SCOPUS, SCIENCE DIRECT (Key terms: corticosteroids, methylprednisolone, hydrocortisone, dexamethasone and acute lung injury, adult respiratory distress syndrome, acute respiratory distress syndrome, steroid, respiratory failure, septic shock, mechanical ventilation). The literature search was also performed on Medline (1950–2017) and EMBASE (1980–2017). RESULTS: A total of 150 patients diagnosed with ARDS were included in the study. Mean age of the study population was 43.37 ± 16.15 years. 87% of the patients were males, 60.7% of the population. Analyzing the treatment pattern, 98.6% were given antibiotics for their underlying conditions along with supportive therapies, 48.6% of patients received glucocorticoid therapy and was found to be beneficial. Outcome analysis revealed 50.7% of patients recovered and 49.3% expired. Higher mortality (56.4%) was observed in the group who did not receive glucocorticoid therapy compared to the group which received glucocorticoid therapy (41.7%). CONCLUSIONS: The overall mortality rate was found to be high in ARDS patients in this study and use of glucocorticoids showed beneficial effects.