with an average patient age of 63.4 (+15.8) years in the SBT group, and 81 residents placed 362 CVC in higher lines in patients with an average age of 60.8 (+15.3) years in the control group. Compared to the traditional training, the SBT was a dominant case with cost-saving ($5,062, p = 0.002), and reductions of overall complications (3.9%, p = 0.017) and severe complications (3%, p = 0.043) per admission, resulted in the incremental cost-effectiveness ratios of $1,298 < $5,062 (3.9%) and $1,617 < $5,062 (3.0%) per 1% averteded probability of overall and severe complications gained, respectively. The total benefit cost ratio was 10.2. Even in the first year, the SBT demonstrated a high return on investment (ROI) of 649% with a $4,863 net benefit per admission. The ROI could reach 934% and 986% in 5 years and 10 years, respectively.

**CONCLUSIONS:** Using SBT for CVC insertion is a cost-effective approach that can be widely implemented.

**PIN58**

**PROJECTED COST SAVINGS OF INTRODUCING FECAL MICROBIOTA TRANSPLANT TREATMENT FOR CLOSTRIDIUM DIFFICILE INFECTION IN CANADA**

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**OBJECTIVES:** To project the cost savings of introducing Fecal Microbiota Transplant (FMT) treatment for Clostridium difficile infection (CDI) prevention, by age, and three major subpopulations, hospitals, long-term care facilities (LTCF), and communities.

**METHODS:** We modified our existing CDI decision analysis model that projected the cost-effectiveness of current antibiotic treatment for CDI over five years (2015-2019), by integrating current annual trends in CDI, and population projections for Canada, by age, gender, and three major subpopulations. To estimate current annual trends in CDI, we conducted a systematic analysis of national and provincial CDI data in Canada. To estimate the next five years, CDI treatment with FMT is estimated to result in a potential cost savings of $300.4 M as compared to current practice. We projected 70,000 fewer cases of CDI in the FMT treatment arm, due to fewer recurrences for FMT. The recurrence rates for current antibiotic treatment were estimated at 25% and 35% for first and second recurrences, respectively. The recurrence rate for FMT was 10.4%. Over 90% of the cost savings for FMT as compared to antibiotic treatment are for ages 60 and over, and $217.3 M for ages 70 and over, and $148.3 M for ages 80 and over. By subpopulation, over the next five years FMT would result in a potential cost savings of $216.5 M for hospital-acquired CDI (HA-CDI), and $68.7 M for community-acquired CDI (CA-CDI).

**CONCLUSIONS:** Introducing FMT could result in a substantial cost savings over the next five years in Canada. As the Canadian population ages, and the numbers of CDI cases among the elderly might grow, FMT holds the promise of higher potential cost savings.

**PIN63**

**ECONOMIC IMPACT OF SOFOBUVIR BASED REGIMENS IN HEPATITIS C: AN INTERNATIONAL PERSPECTIVE**

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**OBJECTIVES:** Chronic hepatitis C virus (HCV) incurs significant economic costs to the healthcare system. There is a paradigm shift in the treatment of Hepatitis C with the introduction of sofosbuvir. It is highly efficacious and safe but is an expensive treatment alternative to existing treatment options. The study goal is to provide an in-depth review of economic studies that have evaluated the cost-effectiveness of sofosbuvir in hepatitis C. **METHODS:** A comprehensive literature search was conducted using electronic databases such as PubMed, CINAHL, Scopus, and Cochrane Reviews. The search strategy included treatment-naïve as well as treatment-experienced patients of all genotypes. Full-text, published articles from Europe and United States (U.S.) were identified. Data on decision model, perspective, comparators, time horizon, costs, outcomes, price sensitivity, analysis results were extracted from the reviewed studies. **RESULTS:** A total of 9 economic studies (5 U.S. and 4 Europe) were identified from the literature. The comparators included no treatment, peginterferon+ribavirin, boceprevir, telaprevir, and simeprevir based regimens. Markov model utilized by all studies to simulate disease progression over a lifetime horizon. The cost/QALY for treatment-naïve, patients ranged from $21,869-$31,152 for genotype 1 and US$7,146-$99,189 for genotype 2 and 3. The cost/QALY for treatment-experienced patients was US$2,177-$420,910 for genotype 1 and US$5,280-$129,344 for genotype 2 and 3. Overall, sofosbuvir was cost effective in younger patients and those with severe fibrosis. Sofosbuvir and simeprevir combination led to an average cost savings of US$391,590. **CONCLUSIONS:** Genotype 1 is the most cost-effective treatment for hepatitis C based on the willingness-to-pay threshold values. Factors that were found to influence cost-effectiveness of sofosbuvir include disease severity, duration of treatment, and age of patients.

**PIN65**

**THE COST EFFECTIVENESS OF A NOVEL HIGH PRICED COMBINATION THERAPY FOR HEPATITIS C IN TREATMENT-NAÏVE GENOTYPE 1 INFECTED PATIENTS**

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