



Summer Studentship Project 2019-2020

Project Two

Title of project: Comparisons of direct medical care costs and hospitalisation rates among COPD medicine users

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Project description

Chronic obstructive pulmonary disease (COPD) is a progressive disease that is not fully reversible. High costs of care underscore the need for appropriate resource allocation to alleviate or reverse disease trends (Lopez-Campos et al., 2016). There is a growing demand on government, funding agencies and budget allocators to equitably distribute resources. Generally, the direct cost of providing care should be as low as possible for treatment of specific conditions like COPD, especially if these costs are compared to patients' functioning ability and quality of life (Sadatsafavi et al., 2016). Spending growth has also risen in recent times both for NZ healthcare funding and globally (Norris et al., 2016).

The high burden of hospitalizations and deaths resulting from respiratory disorders have been reported in local and international studies (Milne and Beasley, 2015; Khakban et al., 2015). Furthermore, the growing cost of hospitalizations and care has prompted concerns among policy and decision makers worldwide (Luga et al., 2014). Locally, there has been limited NZ research that has examined publicly-funded health care costs for respiratory disorders in relation to health outcomes for those admitted in hospitals (NHC, 2013).

Aim

The study objectives include;

1. To examine the trend of COPD medicine utilization per person-year after first COPD hospitalization between 2005 and 2016 calendar year
2. To compare direct COPD hospitalization rates between dual and triple therapy after the first COPD-related hospitalization among New Zealand (NZ) and British Columbia (BC) population-based cohorts

3. Comparing direct COPD medication care costs between monotherapy and combination therapy for patients
4. Comparing mortality rates between COPD patients on dual and triple therapy among similar population datasets

Available datasets

Some of NZ datasets available for linking, merging and follow-up of population studies include:

- NMDS – National minimum dataset (hospital events)
- PHO (Primary Health Organization) Enrolment
- Pharms (Pharmaceutical Collection) – dispensing claims for medicines
- Mortality Collection
- NNPAC (National Non-Admitted Patients Collection)