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| **Triple CFTR modulator therapy reduces healthcare utilisation and cost - an analysis prior to PBS listing** |
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| **Introduction/Aim:** There is no cure for cystic fibrosis (CF), however, therapeutic advances are resulting in increased life expectancy. Cystic fibrosis transmembrane regulator modulator therapies (CFTRmt) currently provide the greatest hope of improved health. Elexacaftor-Tezacaftor-Ivacaftor (ETI) (TrikaftaTm) is currently the most efficacious CFTRmt. Pharmaceutical benefits scheme access to ETI commenced on 1st April 2022 for people with CF aged >12 years old, with a F508del CFTR gene mutation. Prior to this access in Australia was limited to clinical trial and compassionate access (FEV1 percentage predicted <30% or rapidly deteriorating lung function) use. We assess the impact of access to ETI through clinical trial and compassionate use upon healthcare utilisation by people with CF.**Methods:** Single centre retrospective study of adults with CF receiving specialist CF service care between January 2017 and December 2021. Data was obtained from electronic CF clinical databases, and health information services. Healthcare utilisation (hospital admissions, outpatient attendances and associated costs) as well as FEV1, weight and BMI were compared between treatment (clinical trial or compassionate) and routine care groups. **Results:** Of 310 patients, 62 received ETI (n=31 for clinical trial, n=31 for compassionate reasons). Baseline lung function and BMI were lower in the compassionate access and clinical trials groups, with increased health care costs (hospital admission and outpatient attendances) in the compassionate access group, compared to routine care. Median hospital days reduced by 1day/month (SD 0-2) in the clinical trial and 2days/month (SD 0-5) in compassionate access groups compared to routine care. Health care costs reduced by $100/day (SD $16-$148) in the clinical trial group and $204/day (SD $101-$294) in the compassionate access group. Lung function and BMI improved on both ETI treatment groups compared.**Conclusion:**Use of ETI through both clinical trials and compassionate was associated with a reduction in days of hospital care and associated costs. **Grant Support:** Nil |