Results: Preliminary results indicate a strong preference for the hypothetical oral pill among NDD-CKD patients. A lower chance of hospitalisation, a lower chance of requiring additional anaemia therapy, and reducing the amount of “bad” cholesterol were also preferred by patients and were significant drivers of choice. Simplicity, convenience, and needle fear were included as reasons in the open text provided by patients, for increased patient value of the oral pill above SC and IV injections. Treatment attributes for frequency of administration, personnel, and location of medication collection and administration had lower importance to patients. As expected, patients’ preferences for all modes of administration decreased with increases in monthly out-of-pocket costs over the range $0–$75 AUD and $0–$150 CAD. Final data including similarities and differences between Australian and Canadian patients will be explored.

Conclusions: The results of this DCE show that both Australian and Canadian NDD-CKD patients strongly preferred the hypothetical oral pill (holding all else constant). Our findings could be used as evidence to prioritise the most important characteristics of medications for anaemia of CKD from the patients’ perspective.

Conflict of Interest: This research was funded by AstraZeneca and conducted by CaPPRe. JS, EW, PB, SG, NR, DW, RK, AP are employed by AstraZeneca Limited and hold stock options. SF and BW are employed by CaPPRe. CaPPRe has consulted to Abbvie, Amgen, AstraZeneca, Celgene, GSK, Ixpin, Roche, Sanofi, and Shire, outside of the submitted work. DJ has received consultancy fees, research grants, speaker’s honoraria and travel sponsorships from Bayer Healthcare and Fresenius Medical Care, consultancy fees from AstraZeneca, Bayer and AWAK, speaker’s honoraria and travel sponsorships from ONO, and travel sponsorships from Amgen. He is a current recipient of an Australian National Health and Medical Research Council Practitioner Fellowship. KKT has received consultancy fees from Otsuka, AstraZeneca, Janssen and Baxter, and receives grant support from Otsuka and Astellas.

Table 1. Summary of healthcare resource use rates

<table>
<thead>
<tr>
<th>Resource Use</th>
<th>Critical Care</th>
<th>UACR ≤60 mg/dL</th>
<th>UACR &gt;60 mg/dL</th>
<th>UACR &gt;100 mg/dL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events</td>
<td>Rate (95% CI)</td>
<td>Events</td>
<td>Rate (95% CI)</td>
<td>Events</td>
</tr>
<tr>
<td>U.K. TrisMix</td>
<td>5.75</td>
<td>2.7 (1.7-3.7)</td>
<td>6.21 (5.2-7.1)</td>
<td>3.78 (3.0-4.7)</td>
</tr>
</tbody>
</table>

Conclusions: This analysis demonstrated that higher HCRU is seen in patients with increasing albuminuria, emphasizing the clinical and economic burden of CKD. These results highlight the need for innovative therapies to improve patient outcomes in this population.

Conflict of Interest: JJGS, MA, GC, AS, and SN are employees and stockholders of AstraZeneca. HH has received grants and other fees from AstraZeneca, Merck, Mitsubishi Tanabe, Janssen, Mundipharma, Gilead, Abbvie, Retrophin, Boehringer Ingelheim, Bayer, Chinox, Novo Nordisk, and CSL Pharma. CP is an advisory board member for AstraZeneca, Eli Lilly/Boehringer Ingelheim, and has received speaker fees from Novartis, Janssen Cilag, Otsuka, and Vifor. JJC has received institutional grants from AstraZeneca, ViforPharma and Astellas speaker fees from AstraZeneca, Abbott and Nutricia, and consultancy for AstraZeneca, Baxter Healthcare and Bayer. RPF is an employee of Arbor Research Collaborative for Health, which receives global support for the ongoing DOPPS Programs (provided without restriction on publications by a variety of funders – for details see https://www.dopps.org/AboutUs/Support.aspx) and has received research grants from Fresenius Medical Care, non-financial support from AstraZeneca, Bayer, Boehringer, Novo Nordisk, Akebia, and personal fees from Retrofit outside the submitted work. CL is supported by a Clinician Scientist Award from the National Medical Research Council of Singapore and has received research support from Boston Scientific, Bayer, Roche Diagnostics, AstraZeneca, Medtronic, and Vifor Pharma has served as consultant or on the Advisory Board/Steering Committee/Executive Committee for Abbott Diagnostics, Amgen, Applied Therapeutics, AstraZeneca, Bayer, Biofouirms, Boehringer Ingelheim, Boston Scientific, Corvia Medical, Cytokinetics, Darma Inc., Eko.ai Pte Ltd, JanaCare, Janssen Research & Development LLC, Medtronic, Menarini Group, Merck, MyoKardia, Novartis, Novo Nordisk, Radcliffe Group Ltd., Roche Diagnostics, Sanofi, Stealth BioTherapeutics, The Corus, Vifor Pharma and WebMD Global LLC and serves as co-founder & non-executive director of Us2.ai Pte Ltd. This study is funded by AstraZeneca.

POS-319

EMERGENT AND CRITICAL HEALTHCARE RESOURCE UTILISATION OF PATIENTS WITH CHRONIC KIDNEY DISEASE ACCORDING TO SEVERITY OF ALBUMINURIA: A REPORT FROM THE DISCOVER CKD RETROSPECTIVE COHORT

GARCIA SANCHEZ, JJ1, Carrero, JJ2, Arnold, M1, Heerspink, H1, James, G1, Lam, C1, Abdul Sultan, A1, Pollock, C1, Chen, T1, Nolan, S1, Pecoits-Filho, R2

1AstraZeneca, None, Cambridge, United Kingdom; 2Karolinska Institutet, Department of Clinical Epidemiology and Biostatistics, Stockholm, Sweden; 3University of Groningen, Department of Clinical Pharmacy and Pharmacology, Groningen, Netherlands; 4National Heart Centre, Department of Cardiology, Singapore, Singapore; 5Duke-NUS Medical School, None, Singapore, Singapore; 6Rolling Institute-Royal North Shore Hospital University of Sydney, None, Sydney, Australia; 7AstraZeneca, Nantes, Gatersburg, United States; 8School of Medicine-Pontifical Catholic University of Parana, None, Curitiba, Brazil; 9Arbor Research Collaborative for Health, None, Ann Arbor, United States

Introduction: Real-world data reporting healthcare resource utilization (HCRU) associated with CKD categorized according to severity of albuminuria, are scarce.

Methods: DISCOVER CKD is an observational study in patients with CKD. Data was extracted using the US hospital based electronic medical record database; TriNetX and the UK primary care Clinical Practice Research DataLink (CPRD) linked to hospital data. Patients were aged ≥18 years with ≥32 urine albumin-creatinine-ratio (UACR) measure and two estimated glomerular filtration rate (eGFR) measures of 0.75 mL/min/1.73 m2 recorded at least 90 days apart between January 2008 and September 2018. Index date was 2nd eGFR. Incidence rates per 100 person-years (PY) were estimated for critical care and emergency room visits.

Results: Preliminary, 19,183 patients from TriNetX [mean [standard deviation] age of 65.0 [11.9] years, 53.1% female, median [interquartile range] eGFR 60.0 [49.9-68.6] and UACR 10.4 [4.5-30.1]] and 99,186 patients from CPRD [mean [SD] age of 68.5 [11.3] years, 50.8% female, median [IQR] eGFR 64.0 [55.1-70.2] and UACR 15.9 [6.9-36.6]] met the inclusion criteria. Emergency room visits and critical care visits were frequent and increased considerably with increasing UACR. Large differences were seen between emergency room visits and critical care admissions in the US and UK, Table 1.

POS-320

INSIDE ANEMIA OF CKD: QUANTIFYING THE EPIDEMIOLOGICAL BURDEN OF ANEMIA OF CKD IN CANADA VIA MICROSIMULATION MODELLING

GARCIA SANCHEZ, JJ1, Retal, L1, Webber, L2, Cabrera, C2, Grandy, S1, Rao, N1, Bhatt, P2, Parackal, A1, Wong, D1, Wish, J2, Tangri, N1

1AstraZeneca, Health Economics, Cambridge, United Kingdom; 2HealthLumen, Cryptographic Health Economics & Mathematical Modelling, London, United Kingdom; 3HealthLumen, Co-founder and COO, London, United Kingdom; 4AstraZeneca, Epidemiology & Evidence Excellence, Gothenburg, Sweden; 5AstraZeneca, Global Pricing and Market Access, Gaithersburg, United States; 6AstraZeneca, Biopharmaceuticals Medical, Wilmington, United Kingdom; 7AstraZeneca, Biopharmaceuticals Medical, Gothenburg, Sweden; 8AstraZeneca, Global Pricing and Market Access, Cambridge, United Kingdom; 9AstraZeneca, Biopharmaceuticals Medical, Gothenburg, Sweden; 10AstraZeneca, Innovation- Value & Access Strategy, Mississauga, Canada; 11Indiana University School of Medicine, Division of Nephrology, Indianapolis, United States; 12University of Manitoba, Chronic Disease Innovation Center, Winnipeg, Canada

Introduction: Chronic kidney disease (CKD) is associated with adverse cardiovascular outcomes, premature mortality and reduced quality of
Introduction: Chronic kidney disease (CKD) is a costly public health issue, with an estimated prevalence of 13.4% globally. Anemia is a common complication associated with CKD resulting in reduced health-related quality of life and high healthcare costs. The objective of this analysis was to estimate the direct medical care cost offsets of investigational agent roxadustat for the treatment of anemia in patients with non-dialysis dependent (NDD) CKD from a Canadian healthcare perspective.

Methods: Data from the roxadustat global Phase 3 program were used to estimate the projected incidence of rescue therapy use (intravenous iron, erythropoiesis stimulating agents or red blood cell transfusions) and major adverse cardiovascular events-plus (MACE+) for roxadustat compared to standard of care (placebo) in NDD patients with anemia of CKD. MACE+ events included myocardial infarction, stroke, hospitalized unstable angina, hospitalized congestive heart failure, cardiovascular death, and other death. Published Canadian cost data were used to estimate the cost of each medical event. A hypothetical cohort of 10,000 NDD Canadian patients with anemia of CKD aged 18 years and older was modeled with net medical care cost offsets calculated in Canadian dollars for each of the five years and cumulatively. Patients who transitioned to dialysis during the time horizon of the analysis were also evaluated in this cost offsets analysis.

Results: Compared to standard of care, preliminary results of the model for patients with NDD CKD and patients who transitioned to dialysis during the five year horizon of the analysis showed that roxadustat could produce net medical care cost offsets resulting from the reductions in rescue therapy usage and reduction in MACE+ events (specifically hospitalizations due to HF). Cumulative medical care cost offsets for patients with NDD CKD and patients who transitioned to dialysis during the five year horizon of the analysis compared with standard of care were estimated for rescue therapy use ($1,428,501) and MACE+ ($1,496,865).

Conclusions: This cost offsets analysis provides evidence that treatment with roxadustat, in NDD patients with anemia of CKD and patients who transition to dialysis, could result in lower total medical care net costs compared to the costs of standard of care.

Conflict of Interest: This research was funded by AstraZeneca and conducted by Avalon Health Economics. GSJJ, RN, GS, BP, PA, WD are employed by AstraZeneca Limited and hold stock options. SJ, DS, HA and BA are employed by Avalon Health Economics.