92

## Medical Multimorbidity in Adults with 22q11.2DS

*Sarah Malecki[1], Spencer van Mil[1], Elemi Breetvelt[1], Justin Graffi[1], Eva Chow[1], Maria Corral[1], Erik Boot[1],* ***Anne Bassett[1]***

***Institution(s):*** *University of Toronto, Toronto, ON, Canada [1]*

**Background**: Multimorbidity is often seen in multisystem genetic syndromes and is associated with increased mortality, polypharmacy, and healthcare spending. However, there is little information about the extent of multimorbidity in adults with 22q11.2 microdeletions. In this study we evaluated concurrent medication use as a measure of multimorbidity in adult patients with 22q11.2 deletion syndrome (22q11.2DS) and compared this to comparable data available for adults in the general population. **Methods:** In 266 adults with 22q11.2DS at a median age of 27.9 (range 17.3-68.6) years, we recorded all prescription medications used at a single point in time and classified each using a standard method, Anatomic Therapeutic Classes (ATC). We compared the number of medications taken and the distribution of ATC medication classes to similar data available from a general population sample, The Canadian Health Measures Survey through Statistics Canada's Research Data Program. We used Poisson regression to examine demographic and clinical predictors of the number of ATC classes of medications used amongst the 22q11.2DS population. **Results:** Patients with 22q11.2DS were taking a median of 3 (range 0-14) prescription medications across a median of 2 (range 0-8) ATC drug classes. Older age (PE= 0.0215, p<.0001) and presence of a psychotic illness (PE= 0.356, p=.0011), but not major congenital heart defect or sex, were significant predictors of an increased number of ATC medication classes. Results for the 22q11.2DS sample showed both a significantly greater number of medications and a significantly greater number of ATC medication classes than for the general population at a comparable age range. **Conclusions:** Despite the relative youth of the cohort studied, the results suggest that adults with 22q11.2DS have a significant burden of illness and multimorbidity as implicated by concurrent prescription medication use. The ATC medication profile for the 22q11.2DS cohort was more comparable to that of general population samples that were several decades older. Further investigations are required to characterize the multisystem disease burden of patients with 22q11.2DS in terms of healthcare costs and relationship to mortality.