Survey of Contemporary Management of ADPKD Highlights Need for Improved Knowledge Translation

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BCRenal an agency of the Provincial Health Services Authority

a place of mind UBC

Introduction

Autosomal Dominant Polycystic Kidney Disease (ADPKD) is the 4th leading cause of end-stage renal disease (ESRD)[1]

In recent years, there has been a paradigm shift in the management of ADPKD, including novel biomarkers of disease progression such as total kidney volume (TKV)[2], refined blood pressure (BP) targets[3], and repurposed drugs such as Tolvaptan[4]
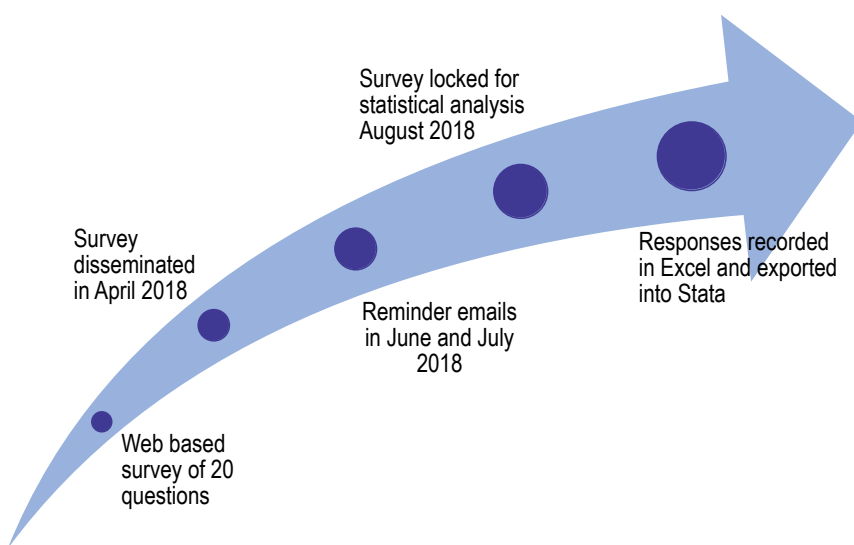
Tolvaptan was approved for use in Canada in 2015 and it has become available for use in British Columbia (BC) in 2016

Objectives

To identify current practice patterns and familiarity with new evidence based ADPKD management tools in BC

To identify areas indicated by the clinicians that may benefit from future development of educational tools and resources to standardize care in BC
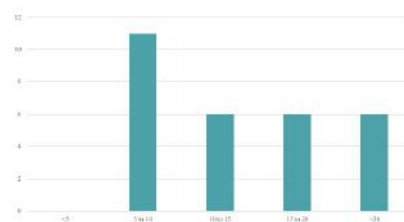
Methods

Survey disseminated in April 2018

Survey locked for statistical analysis August 2018

Reminder emails in June and July 2018

Responses recorded in Excel and exported into Stata

Web based survey of 20 questions

Survey consisted of multiple-choice questions regarding:
- Clinician demographics
- Sources of information regarding ADPKD care
- Self-identified needs for optimal management of ADPKD
- Types of renal prognostication tools used
- Imaging test and frequency of follow up imaging
- Blood pressure targets
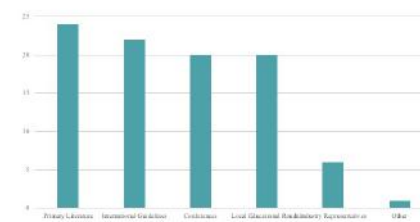- Understanding of Tolvaptan utility

Results

Response

31 responses − 2 responses <95% complete = 29 total responses for a 45% response rate

Clinician Demographics

Figure 1 Number of years in practice
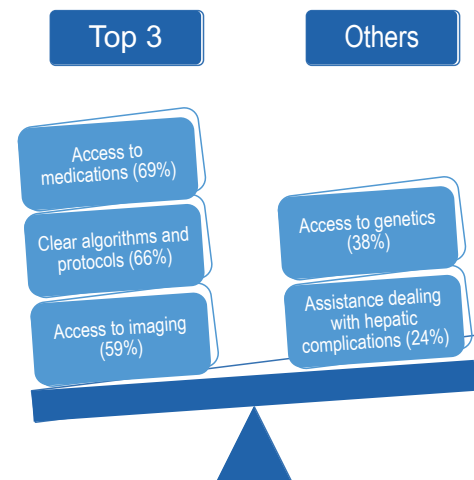
Sources of Information

Figure 2 Sources used by respondents

- At least one respondent from each of the 6 health authorities in BC
- Most commonly used guideline is "Assessing Risk of Disease Progression and Pharmacological Management of Autosomal Dominant Polycystic Kidney Disease: A Canadian Expert Consensus" CJKHD (96%)

Needs Assessment

Top 3
- Access to medications (69%)
- Clear algorithms and protocols (66%)
- Access to imaging (59%)

Others
- Access to genetics (38%)
- Assistance dealing with hepatic complications (24%)

Risk Assessment

- Majority of respondents (86%) assess risk of progression before kidney function starts to decline in some (18%) or most (68%) of their patients
- Most commonly used tool for assessing ESRD risk in ADPKD patients is estimated glomerular filtration rate (eGFR) at 86%
- TKV is being used by 79% of clinicians for risk assessment
- Existing risk prediction tools such as the Mayo Classification based on height-adjusted TKV is used less frequently at 28%

Results

Imaging
- 5 respondents felt 'very confident' in their ability to interpret metrics of kidney size like TKV, 15 respondents (68%) felt somewhat confident
- Among those who reported using kidney size to assess the risk of disease progression, 13% were not confident in their ability to interpret the imaging results, and 65% were only somewhat confident

Blood Pressure Targets

Figure 3 Goal blood pressure targets
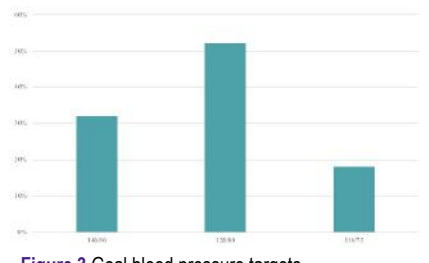
Tolvaptan
- 12 respondents (41%) have patients on Tolvaptan in their practice, and 59% of clinicians have been approached by patients seeking information about the drug
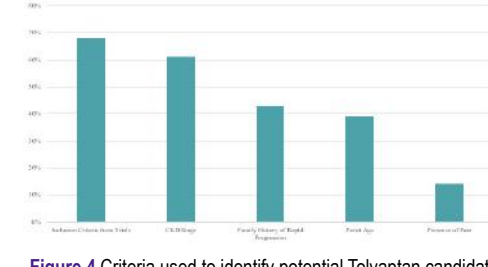
- 31% report being 'very confident' in identifying suitable candidates for therapy
- 10% report being 'not confident' in their ability to identify suitable candidates

Figure 4 Criteria used to identify potential Tolvaptan candidate

- 45% were 'very familiar' and 55% were 'somewhat familiar' with the evidence regarding Tolvaptan
- Of those who felt 'very familiar' with the evidence base, only 50% were very confident in identifying suitable patients
- 25% of respondents base their criteria on consultation from a colleague with ADPKD expertise
- 46% of respondents use the Mayo classification to determine if patients are candidates for treatment with Tolvaptan

Conclusions

Large variation in practice patterns, comfort level, and familiarity with new ADPKD management tools

These results identify opportunities for targeted education and tool development for standardization of care in management of ADPKD in BC

References

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2. Irazabal MV, Rangel LJ, Bergstralh EJ, Osborn SL, Harmon AJ, Sundsbak JL, et al., the CRISP Investigators. Imaging Classification of Autosomal Dominant Polycystic Kidney Disease: A Simple Model for Selecting Patients for Clinical Trials. J Am Soc Nephrol. 2015 Jan 1;26(1):160–72.
3. Schrier RW, Abebe KZ, Perrone RD, et al. Blood pressure in early autosomal dominant polycystic kidney disease. N Engl J Med. DOI: 10.1056/NEJMoa1402685.
4. Torres VE, Chapman AB, Devuyst O, et al. Tolvaptan in patients with autosomal dominant polycystic kidney disease. N Engl J Med 2012;367:2407-2418