

Does the choice of Cystometry Catheter affect Urodynamic Diagnosis?

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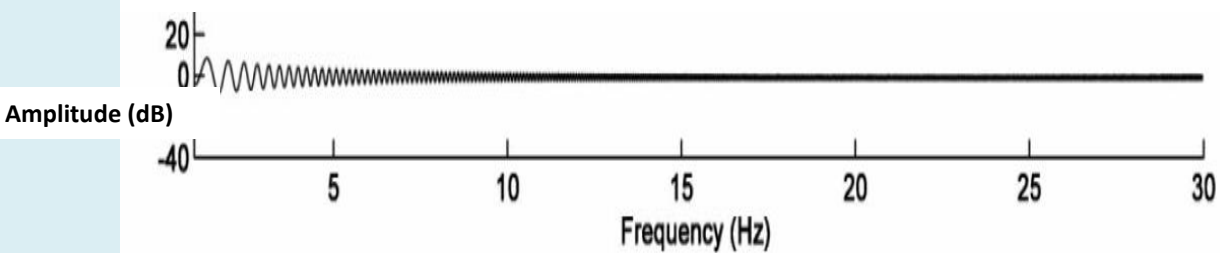
Aims: 1) Comparison of published Cystometry Quality Assurance (QA) data relating to catheter type.

2) Comparison of urodynamic diagnoses made with water perfused catheters (WPCs) before and after digital filtering to simulate the effect of air-charged catheters (ACCs). **Methods:** 1) Fishers exact test; 2) Re-plot of the measured

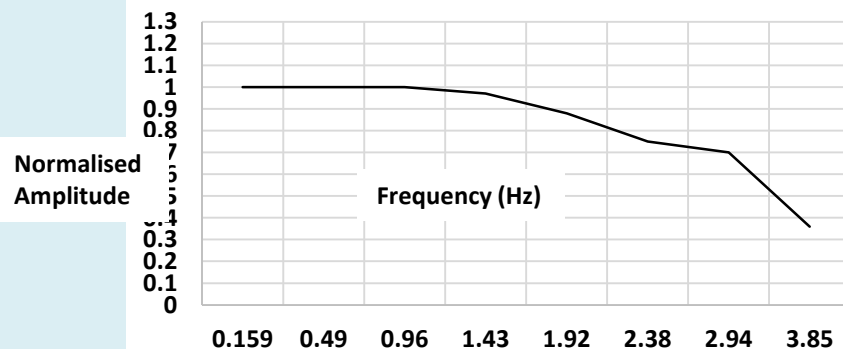
frequency response for ACCs then modelling different low pass filters with variable cut-offs and pass band ripple. 3)

Comparison of the amplitude of involuntary and voluntary detrusor contractions (DO and Pdet.max respectively) using 95% confidence intervals and Bland-Altman analysis.

ACC catheter frequency response measured by Cooper et al.



2-pole Chebyshev low pass filter with $f_c = 2.5$ Hz and 0.5% Pass Band Ripple



Results: 1) Gammie *et al* have previously shown that for female patients, while WPCs were better at achieving good resting subtraction when the patient was supine, ACCs had fewer problems in general during the filling phase. However, the total number of QA issues was the same for each type of catheter (Pves: 100/321 vs. 96/321, $p=0.79$; Pabd 109/321 vs. 109/321, $P=1.00$) in intravesical and rectal positions. 2) 95% CI's showed no difference in DO or Pdet.max amplitudes and there were also no differences in qualitative diagnoses.

Conclusion: WPCs and ACCs are interchangeable for making urodynamic diagnoses. **Disclosure:** The authors have no conflicts of interest.

WPC

ACC

Pves



Pabd

