

Point of Care Influenza testing has not increased discharge within 24 hours

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Introduction

POC testing for Influenza in the AS of the RVI (NUTH) has

- reduced time to availability of result
- reduced time to isolation of the individual
- reduced time to prescription of antiviral medication¹.

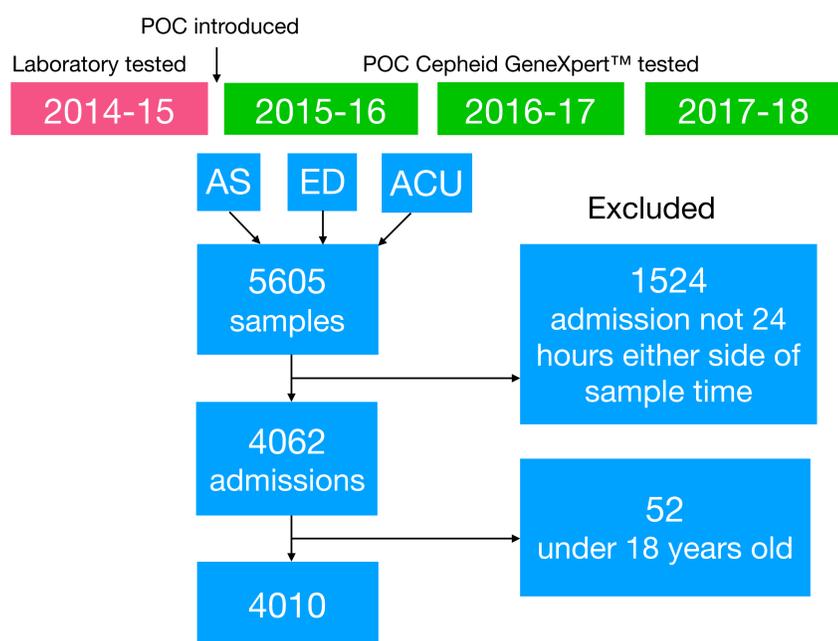
With two further years of data since its introduction, we look to see if POC influenza testing in an acute medical unit has increased the proportion of patients, with laboratory confirmed influenza, discharged within 24 hours of admission.

Results

- 27.8% Influenza positive patients prior to introduction of POC discharged by 24 hours compared to 35% during the seasons 2015-2018 ($\chi^2=0.20$)
- Early discharge increased to 48% ($\chi^2=0.01$) in the 2015 season but this was not sustained
- Testing increased from 345 tests in the 2014 season to 1911 in the 2017 season.
- Influenza positive patients were more likely to be discharged within 24 hours than influenza negative patients both before (OR= 1.74, 95% CI 1.29 to 2.36) and after (OR=1.75, 95% CI 1.49 to 2.06) the introduction of POC.

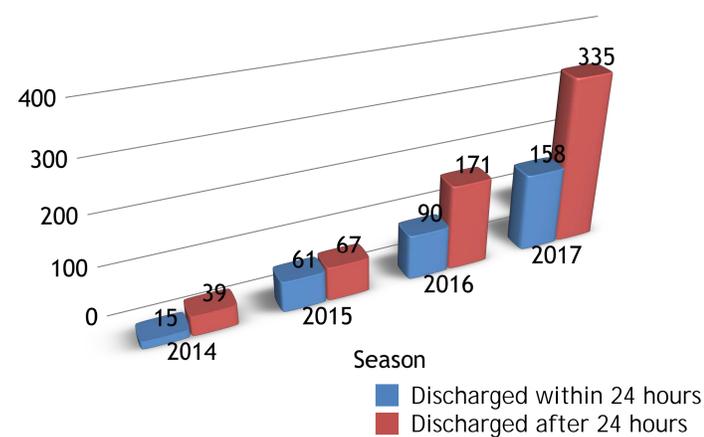
Method

- Autumn 2015; Cepheid GeneXpert analyser introduced to AS.
- Junior medical staff trained to use it.
- For each winter season from 1st Oct to 30th April all samples taken from patients on the AS, ED or ACU were identified

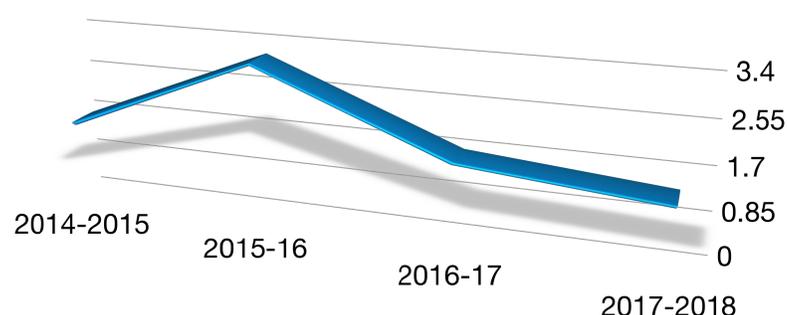


Laboratory data queried via Apex iLab using Cognos Impromptu
Patient electronic records queried using Cerner eRecord
POC; Point of Care. AS; Assessment Suite. ED; Emergency Department; ACU; Ambulatory Care Unit

Number of influenza positive patients discharged within and after 24 hours by season



Odds Ratio of discharge within 24 hours given positive Influenza result



Discussion

- As the number of tests increased dramatically, comparison of seasons is difficult
 - Clinical characteristics are likely to differ greatly.
 - Virulence and Prevalence may also differ between seasons
- As clinicians become accustomed to test availability may drift away from protocolled use of POC test.
 - Initial improvement in early discharge may follow from more restricted use of test.
- Unable to determine role of positive influenza test in decision for earlier discharge
- If positive influenza test encourages earlier discharge, then more frequent and earlier testing may increase early discharge of patients with respiratory symptoms
- Further research is underway to evaluate role of POC testing in specific clinical presentations

References

1)Burton-fanning S, Waugh, S, Payne B, Harwood J, Gibbins C et al. The use of a point of care test for influenza on the medical assessment suite: Experience of a tertiary referral centre 2015/2016. FIS/HIS 2016. ID: 4967

Photos

Photo of GeneXpert IV tank from Cepheid GeneXpert™ product brochure 0112-10.A
Photo of Xpert Xpress cartridge taken from Cepheid Xpert Xpress Flu™ product brochure 0618-02

Acknowledgements

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