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Paper Poster Session

Culture-based diagnostic bacteriology

A 5-year evaluation of compliance with NHSGGC Primary Care Guidelines for the investigation of vaginal discharge in women of reproductive age

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Background: Bacterial vaginosis and acute vulvovaginal candidiasis are important causes of vaginal discharge. Evidence-based guidelines published by BASHH (British Association for Sexual Health & HIV), Public Health England & BIA (British Infection Association) outline best practice for the investigation of women of reproductive age with vaginal discharge. The diagnostic limitations of vaginal swabs in the management of vaginal discharge prompted the following interventions; development of NHSGGC (NHS Greater Glasgow and Clyde) Primary Care Guidelines (January 2011, reissued in 2014), the implementation of a standardised laboratory algorithm for processing specimens (2014) and the integration of this guidance into the GP OrderComms system (2015).

Following on from previous audits of compliance, our aim was to evaluate the impact of these interventions.

Material/methods: Data from our laboratory system over five years was analysed (6-month time periods, July-December from 2010-2015). Data was extracted from the microbiology department at the Southern General Hospital (SGH, south) and Glasgow Royal Infirmary (GRI, north), which serve Greater Glasgow GP practices. Specimens included any sample labelled as vaginal swab. The total number of samples received; number of samples rejected as per the 2014 laboratory algorithm and the percentage positive for bacterial vaginosis/vulvovaginal candidiasis (either on microscopy or culture) was assessed.

Results: Following the 2011 publication of the NHSGGC Primary Care Guidance a 14% reduction in the total number of specimens received was noted in 2012. No significant change in the proportion of positive samples was observed.

Two years after the NHSGGC guidance was published, the number of specimens received returned to almost pre-intervention levels, with only a 2% reduction being observed.

Implementation of the laboratory algorithm and republication of the guidance in 2014 resulted in a 31% reduction in the total number of specimens received between July to December 2014. 22% of received specimens were rejected, as they did not meet the appropriate criteria. Interestingly a reduction in the proportion of samples positive for bacterial vaginosis/vulvovaginal candidiasis was observed between 2013 and 2014.

Conclusions: Microbiology culture of vaginal swabs is a labour intensive resource demanding process. It is of limited diagnostic value in the management of vaginal discharge and as such evidence based guidelines recommend that vaginal swabs should only be taken in specific cases. Introduction of the 2011 NHSGGC guidance was not associated with a sustained reduction in the number of specimens being sent for culture. Development of a standardised laboratory algorithm for processing specimens and reintroduction of the guidance however resulted in a significant reduction. A limitation of our audit method was that not every positive sample may have been representative of true vulvovaginal candidiasis given that *Candida* colonisation has a reported incidence of 20-30%. These observations however remain encouraging and warrant further discussion and evaluation.