Introduction

Interpretative external quality assurance (iEQA) schemes are well established for histopathology but not for Diagnostic Non Gynaecological (DNG) Cytology. The previous established DNG cytology interpretative scheme, operated since the 1990's, circulated glass slide preparations from a range of cases, to cytology laboratories. This timely review of the process and practicalities of delivering such a service, will allow the scheme to be available to the UK, Europe and beyond. Experience of digital systems are developing, but use in an EQA setting is still relatively early (1).

Aims

The scheme aims to promote quality and education for all involved in screening and reporting DNG cytology. It will be open to both medical and non-medical, as well as cytology trainees, providing good cytopathological examples to enable individual feedback and promote education within cytology.

Methods

Many histology iEQA schemes use digitally scanned slides, but traditionally cytology does not lend itself to this due to the variety of sample preparations. This pilot solely utilised digitised scanned cytology slides, to allow ease of access, instant feedback and education. 12 scored cases (individual assessment) and 2 un-scored cases (education) were used, from serous fluids, respiratory, head and neck and urine cases, utilising a mixture of preparation types for both Papanicolaou and Romanowsky stains.

Data Entry

An online system, building on existing iEQA web based systems, was developed to allow for ease of result entry, data analysis and feedback (Image 4). The pilot scheme utilised simple scoring methodology for ease of use and overall proof of scheme concept. Scoring was 2 tier: benign vs malignant. Participants were also able to categorise further and give a specific diagnosis if they felt able.

Results

The majority of diagnoses were correct with only 1 slide not reaching 80% consensus across participants. 2 slides reached 100% consensus, with other cases reaching 82 - 97%. Of 12 scoring slides, 1 did not reach an 80% consensus level: the other 11, all reached agreement of 82% or greater.

Non medical staff (n=13) showed consensus of 83% or greater, with 3 slides reaching 100% agreement. For medical staff (n=19) 2 slided did not reach 80% agreement (slide 2 at 53% and slide 11 at 75%). 5 slides however reached 100% agreement.

Conclusions

There is need for increased quality initiatives and monitoring within DNG cytology. This is not only for compliance with new standards, but also to ensure good adequate material and practice for diagnosis. Currently there is no external way to assess or demonstrate competency in DNG cytology, and this scheme aims to allow for this as its goes live.

User feedback was very positive, with some issues raised that UK NEQAS CPT will aim to address for pilot 2. In particular, serous fluid and FNA samples will in future use both PAP and Romanowsky stains where possible. Given laboratory practice in general, not every type of cytology preparation can be used, but as broad a range of sample and preparation types as possible will be used. This was the first occasion of an online diagnostic cytology interpretative scheme using only scanned virtual image (VSI) cytology slides. It was intended to assess if such a scheme was workable and acceptable, and although the pilot attracted small numbers the overall answer to both is yes.

References


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