A Guide to Understanding Sample Taking Performance Data

Each laboratory in Northern Ireland provides data on reporting profiles at GP practice and laboratory level on an annual basis. Laboratory level data is also available on the YPAST website (www.cancerscreening.hscni.net)

All sample takers are responsible for auditing their individual test results on an annual basis. It is important that all sample takers understand how this data is derived and how to interpret it. This guide is intended to support practices and sample takers in undertaking this function.

Definitions

Inadequate – this measure is based on the slide containing a minimum number of cells when examined at high power field on microscopy. The threshold of what is considered a minimum number of cells may vary by reporting laboratory. There can also be differences in inadequate rates between laboratories due to their individual processing protocols. The comparison should therefore always be made with the inadequate rate of the local reporting laboratory. An 'adequate' sample only indicates that there are enough cells in the sample to provide a report.

$$\text{Inadequate rate} = \frac{\text{number of samples reported as inadequate} \times 100}{\text{total number of samples}}$$

Low grade rate – this measure concerns the pick-up of low grade changes (reported as mild dyskaryosis or borderline abnormality) among all the samples reported as adequate.

$$\text{Low grade rate} = \frac{\text{number of samples reported as mild/borderline} \times 100}{\text{total number of adequate samples}}$$

High grade rate – this measure concerns the pick-up of high grade changes (reported as moderate dyskaryosis, severe dyskaryosis,?invasive carcinoma, glandular neoplasia) among all the samples reported as adequate.

$$\text{High grade rate} = \frac{\text{number of samples reported as high grade} \times 100}{\text{total number of adequate samples}}$$

Interpreting the data

The reporting profile should be reviewed as a whole and within the context the sample taker is working. If the reporting profiles of a sample taker are significantly different to those reported by the laboratory, the following issues should be considered:

- The total number of samples taken? – if only a small number of samples are included in the audit, this may skew the results

- Who are the women being screened? – the women you sample can affect the data eg post-treatment, age, contraception, menstrual problems and parity. Consider if the population for one sample taker is different than for others and if this may explain any variation in results.

- What does trend data look like over time? – is there a recurring high inadequate rate or is this a single year fluctuation

- Is the sample taker using a lubricant on the speculum? – this can increase the inadequate rate

- Has the sample taker attended recent update training? - it is recommended that all sample takers attend update training every 3 years.

If a practice has queries or concerns about the reporting profile of their practice or an individual sample taker, further advice should in the first instance be sought from the local reporting laboratory.

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