

Performance of quality control strategies in cytopathological diagnosis in a reference laboratory

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Cervical cancer is the third most common cancer among women in Brazil, after breast and skin cancer. The exam of Papanicolaou is well-recognized method to safety and efficiently option to recognize pre-malignant alterations of the uterine cervix. This study focused the comparison of three methodologies of internal quality control (QC) of cytologic diagnoses: 1) morphological guide-list to be revised (MGLR); 2) the rapid-rescreening (RR); 3) the revision of 10%. The objective was to evaluate the performance and the viability of the internal QC strategies in a Health Public Laboratory of the State of São Paulo. The uterine-cervix samples were examined at the Adolfo Lutz Institute during the period from 2002 to 2004. Of the 4184 samples, 1117 were submitted to MGLR revision, and with the lasting ones, were held revised by 10% method and RR. The RR was made by two trained professionals, who had adopted the *turret* method to the rescreening, for 60 seconds. The histopathology was used as *gold standard*. The final diagnosis of the cases without biopsy, were evaluated by diagnostic consensus of two pathologists. MGLR samples, 20.7% of cases showed alterations; the revision of 10% found 6.0% and RR, 2.5%. The kappa index between both observes in the RR was $\kappa = 0.98$. Cases prepared with liquid based cytology method presented better performance than conventional smear. The diagnosis concordance between initial diagnosis with the biopsy was of 57.4%; the false-negative (FN) rate of LSIL was 34.9% and HSIL 12.2%; and the diagnosis concordance of the final diagnosis was 97.2%. We conclude that to optimize the internal QC of cytology diagnosis it is important to judge a system which contemplates the association of more than one internal QC methodology, in order to identify the non-conformities and consider possible corrective actions. The RR seems to contribute to the reduce the rates of the false-negative results and also, allows to evaluate the individual performance of the professional, the revision of 10% seems to be important to increase the attention level of the group and the revision of samples selected by MGLR permits us to evaluate the points to be discussed in relation to the cytomorphological criteria.

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