

S4: PARADIGMS AND CHALLENGES IN HEALTH TECHNOLOGIES – HEALTH DIAGNOSIS

Histochemistry: Implementation of Extern Quality Assurance

The assessment of histochemical techniques is qualitative and requires the use of positive controls specific to each method. As the evaluation of the results can be subjective, there is a great need for laboratories to participate in external quality control schemes in histochemistry. In Portugal there is no such systematic control. A model of external quality control has recently been proposed and implemented in the northern region of the country. A group of hospital and veterinary histopathologic laboratories are conducting periodic exercises that involve the execution of commonly used histochemistry techniques, which are then evaluated by a panel of peers. In addition to promoting the awareness of the need for external quality control, this exercise enhances the ability of the technician in evaluating the resultant stains. It encourages dialogue between participants, disseminates best practices, permits discussions on alternative methods and proposes solutions when results are inadequate.

This symposium will describe the process of setting up the scheme and the experiences of some of the participating centers, with accounts of the difficulties experienced and the improvements that were subsequently introduced into routine practice.

Moderator: José Amaro Frutuoso (ESTSP.IPP)

A model of external quality control

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Introduction: The evaluation of histochemical techniques is qualitative and requires the use of positive controls, specific to each method. As this evaluation can be subjective, there is a great need for laboratories to participate, systematically, in external quality control schemes in histochemistry. In Portugal there is no such systematic control.

Objectives: Describe implementation process for an external quality control model (EQC) in histochemistry in the north region of Portugal.

Materials and Methods: a) To select and choose the techniques to be evaluated; b) To establish evaluation criteria for each technique; c) To Choose and test the adequate samples to perform the technique; d) To Ship the sample slides to the participant laboratories; e) To receive the stained slides; f) To perform slide evaluation (blind evaluation); The evaluation is carried out 6 times per year; g) Periodic

meetings take place, in order to present and discuss the techniques. Each participant will only have access to their evaluation and the global comparative analysis.

Results and Discussion: List of techniques selected: Perls, PAS/Alcian Blue, Rhodamine, Masson Fontana, Gram, Grocott, Tricrómico Masson, PAS diastase, Ziehl Neelsen, Elastic fibers, Reticular fibers, Amyloid, Giemsa and Giemsa Modified. Hematoxylin-Eosin. The evaluation criteria will be presented in this session.

Conclusion: The evaluation process allowed to discuss technical best practices, alternatives to the established techniques of each laboratory, as well as possible difficulties and suggestion to solve them, based on the participant experience. This project raised awareness of EQC in histochemistry, and also fostered the development of professionals' spirit of criticism.

The need for external quality control in histochemistry

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Introduction: The importance of internal control in any organization is unquestionable. However, it is fundamental to proceed to regular validation and certification of internal control through external control that assumes, this way, crucial importance in the success of any organization or activity.

Objectives: The principal aim is to explore the importance of internal and external quality control in Histochemistry.

Discussion and Conclusions: The quality control in Histochemistry will allow the individual examination and evaluation, the internal analysis of strong and weak critical points and improvement opportunities showing possible solutions to the observed nonconformities. The inter-services discussion promoted by this type of quality control will contribute to the continuous improvement throughout monitoring the technical quality and by the improvement solutions implementation, once the individual results will be compared with models of excellence. This critical analysis will eliminate, as far as possible, the subjectivity in the techniques evaluation through the standardization of observation criteria.

The external quality assurance assessment

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Introduction: The evaluation of external quality control is fundamental to promote technical and professional issues, namely professional development, motivation, accuracy in results.

Objectives: The principal aim is to apply evaluation criteria for the various histochemical methods for the detection of failures on those methods, propose corrective action and share the best practices.