Pathology

Product Portfolio

External quality assessment (EQA) schemes for pathology: Clinical cytology (including both gynaecological and non-gynaecological cytology), histopathology, immunohistochemistry and histological staining techniques

With changing topics of the rounds, both the routine and more advanced needs of pathology laboratories are covered. The challenges are realistic and include even the less commonly encountered clinically relevant cases.
Clinical cytology

Topics in 2018 and 2019
- 6700: Gynaecological cytology (smear), virtual microscopy (March)
- 6701: Gynaecological cytology (liquid based), virtual microscopy (May)
- 6702: Non-gynaecological cytology, virtual microscopy (October)

Specimens
Brief case histories are provided.

Gynaecological cytology (6700, 6701)
Virtual images of 5–6 Papanicolaou stained slides of gynaecological specimen. The specimens are selected from routine cytological material. Diagnostics of cellular atypias in samples taken from gynaecological loci is assessed. Scheme 6700 includes the conventional pap smear samples. Scheme 6701 includes liquid based cytology (LBC) samples (ThinPrep).

Non-gynaecological cytology (6702)
Virtual images of Papanicolaou stained slides of non-gynaecological cytosentrifuge or smear preparations or May-Grünwald-Giemsa stained smears. Images of 5–6 cases from representative loci.

Examinations
Observations and diagnoses

Reports
- Expert report
- Distribution of diagnoses
- Diagnostic agreement
- Clinical follow-up data on the cases

Notes
Virtual microscopy scheme with no specimen delivery.

Histopathology

Topics in 2018
- April: Prostate pathology
- October: Breast pathology

Topics in 2019
- March: Skin pathology
- October: Endometrial and ovarian pathology

Specimens
Virtual images of 5–8 slides from varying organs or tissues. Brief case histories are provided.

Examinations
Observations and diagnoses

Reports
- Expert report
- Distribution of diagnoses
- Diagnostic agreement
- Clinical follow-up data on the cases

Notes
Virtual microscopy scheme with no specimen delivery. Observe the changing topics of the rounds.
Topics in 2018

- March: CD1a, CD43, CD45, CD30, CyclinD1 (lymphoma)
- September: ER, PR, Ki-67, HER2, GATA3 (breast cancer)
- November: Synaptophysin (SYP), Chromogranin A (CGA), Melan A (MART-1), CEA, CD117 (unknown tumour, melanoma)

Topics in 2019

- March: CD23, BCL2, BCL6, CD10, kappa/lambda* (lymphoma)
- September: ER, PR, Ki-67, HER2, CATA3 (breast cancer)
- October: HE, Leder
- November: IDH1, ATRX, p53, GFAP, CD34 (unknown tumour, brain)

Notes

- A set of stained slides needs to be returned to Labquality. Two rounds with distinct stains are available annually.

Select scheme 6600S for limited selection of antibodies: Report only 3 antibodies for reduced price. Available for all rounds.

Histological staining techniques

Topics in 2018

- March: Iron, Reticulin
- October: Toluidine blue, Jones (methenamine)

Topics in 2019

- April: Kongo, PAS, E-PAS (E=enzyme)
- October: HE, Leder

Specimens

Unstained paraffin sections or smears on slides

Examinations

Staining of the slides. A two or three-member expert board evaluates the slides, giving scores from 0 to 5.

Reports

- Expert report
- Laboratory specific scores and comments on quality of the staining
- Cumulative history of laboratory specific scores
- Mean scores

Notes

A set of stained slides needs to be returned to Labquality. Three rounds with distinct topics and antibodies are available annually.

Histological staining techniques: Varying stains

Topics in 2018

- April: Kongo, PAS, E-PAS (E=enzyme)
- October: HE, Leder

Specimens

Unstained paraffin sections or smears on slides

Examinations

Staining of the slides. A two or three-member expert board evaluates the slides, giving scores from 0 to 5.

Reports

- Expert report
- Laboratory specific scores and comments on quality of the staining
- Cumulative history of laboratory specific scores
- Mean scores

Notes

A set of stained slides needs to be returned to Labquality. Two rounds with distinct stains are available annually.

Scheme 6543

Immunohistochemistry

Topics in 2018

- March: CD23, BCL2, BCL6, CD10, kappa/lambda* (lymphoma)
- September: ER, PR, Ki-67, HER2, CATA3 (breast cancer)
- November: IDH1, ATRX, p53, GFAP, CD34 (unknown tumour, brain)

*primarily cish and if ish is not in use then ihc (also double stain accepted)

Select scheme 6600S for limited selection of antibodies: Report only 3 antibodies for reduced price. Available for all rounds.

Topics in 2019

- March: CD23, BCL2, BCL6, CD10, kappa/lambda* (lymphoma)
- September: ER, PR, Ki-67, HER2, CATA3 (breast cancer)
- November: IDH1, ATRX, p53, GFAP, CD34 (unknown tumour, brain)

Notes

A set of stained slides needs to be returned to Labquality. Three rounds with distinct topics and antibodies are available annually.

Immunohistochemistry: Comprehensive selection of antibodies

Specimens

Unstained paraffin embedded tissue on 3–5 slides from different tissue blocks or from one multiblock.

Examinations

Staining of the slides. A two or three-member expert board evaluates the slides, giving scores from 0 to 5.

Reports

- Expert report
- Laboratory specific scores and comments on quality of the staining
- Cumulative history of laboratory specific scores
- Mean scores
Virtual microscopy involves scanned high-resolution images of representative microscope specimens. The participants can view the virtual slides on their own computer screens. Viewing of several fields of vision and levels of focus with various magnifications are enabled to simulate analysis with an optical microscope. The navigation is easy and virtual slides can be viewed even with a cellular phone. Virtual microscopy allows independent viewing of images simultaneously in different locations.

Virtual microscopy provides a powerful tool for disciplines traditionally limited by the homogeneity and size of the specimen. At present, Labquality offers eight virtual microscopy based EQA schemes including those for clinical cytology and histopathology. In pathology schemes the whole specimen slide has been scanned.

Examples of three different magnifications of one specimen slide in Labquality’s histopathology round in 2018.