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UK NEQAS
International Quality Expertise

Head and Neck Pathology

P16 & HPV Updates

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From Pilot to present Run 140

Participant numbers in both modules

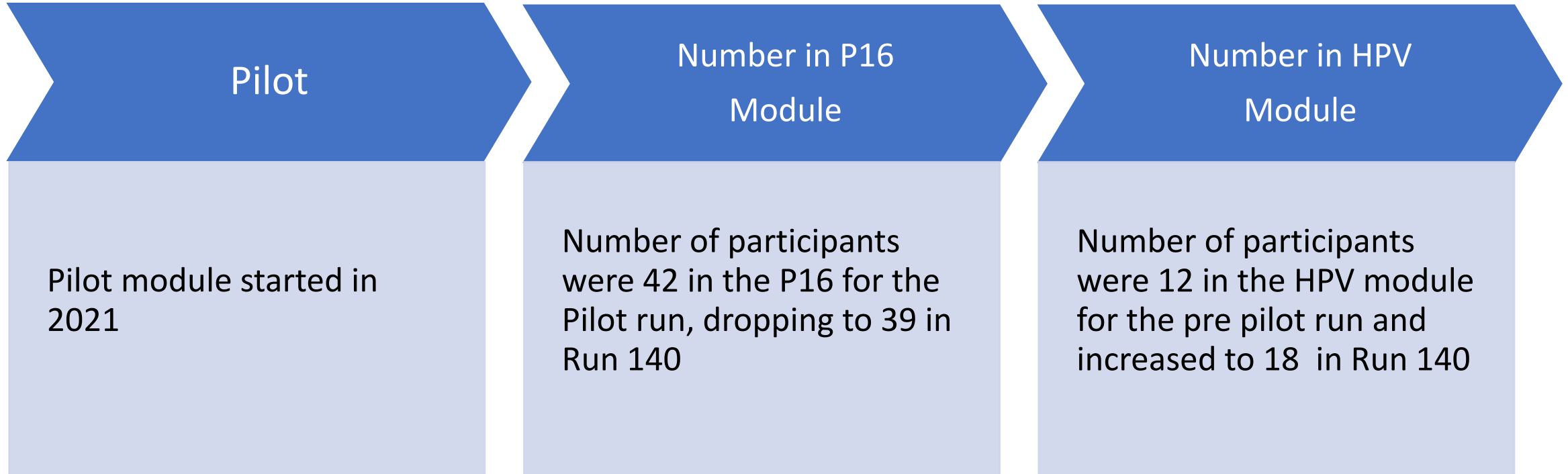
Platforms used

Antibodies/Methods used

Assessment scores for both NEQAS and In-house material

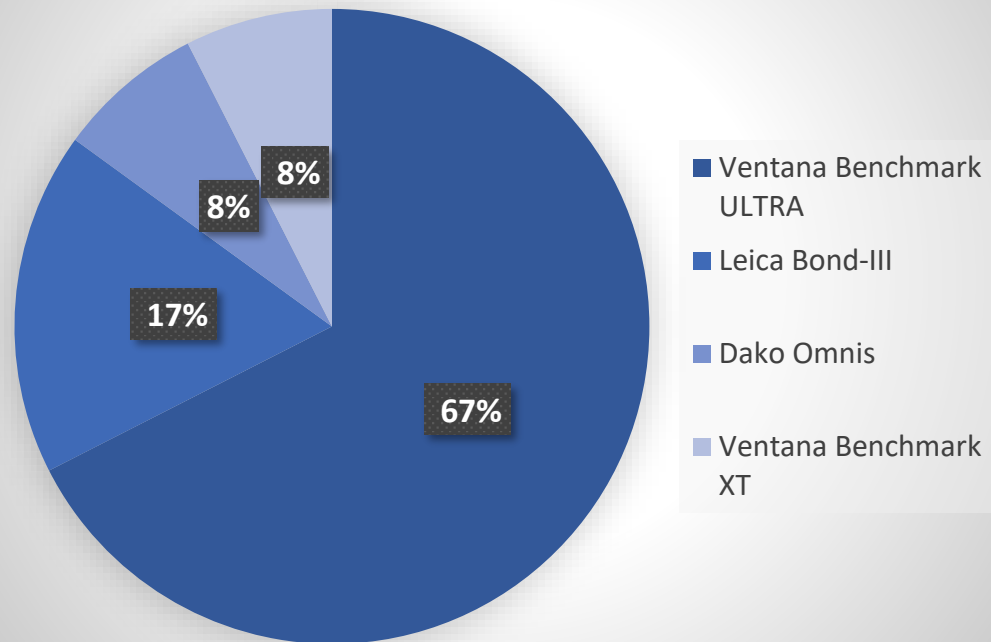
Future plans

From Pilot to present Run 140

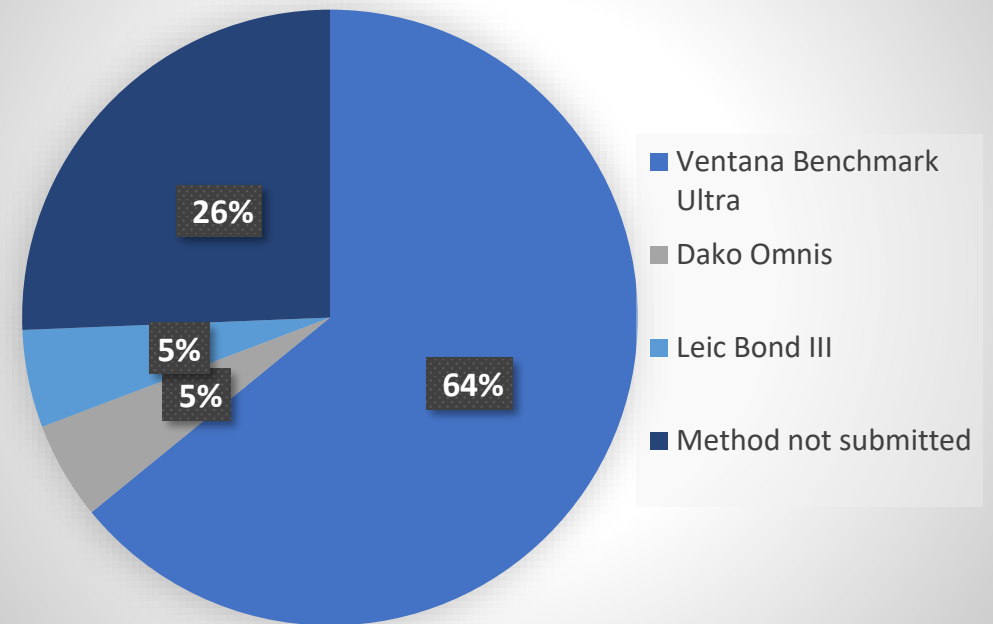


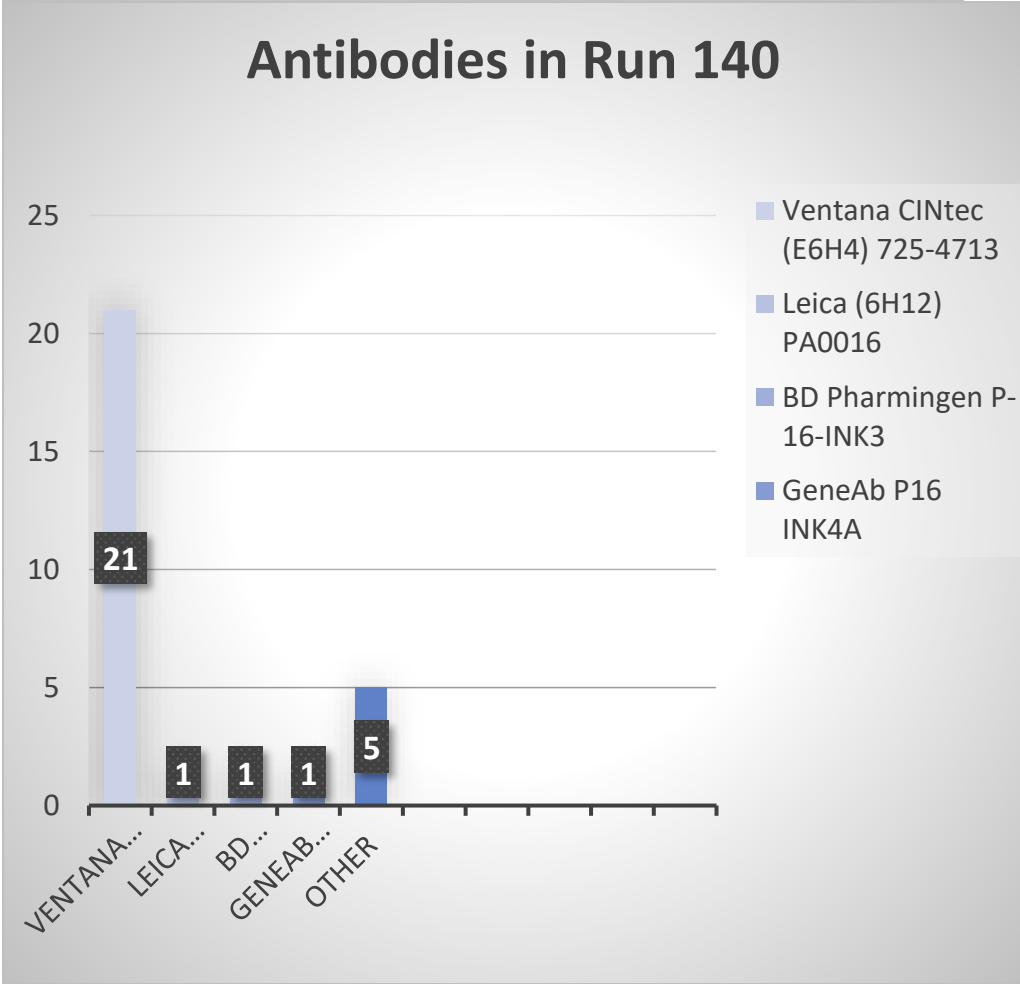
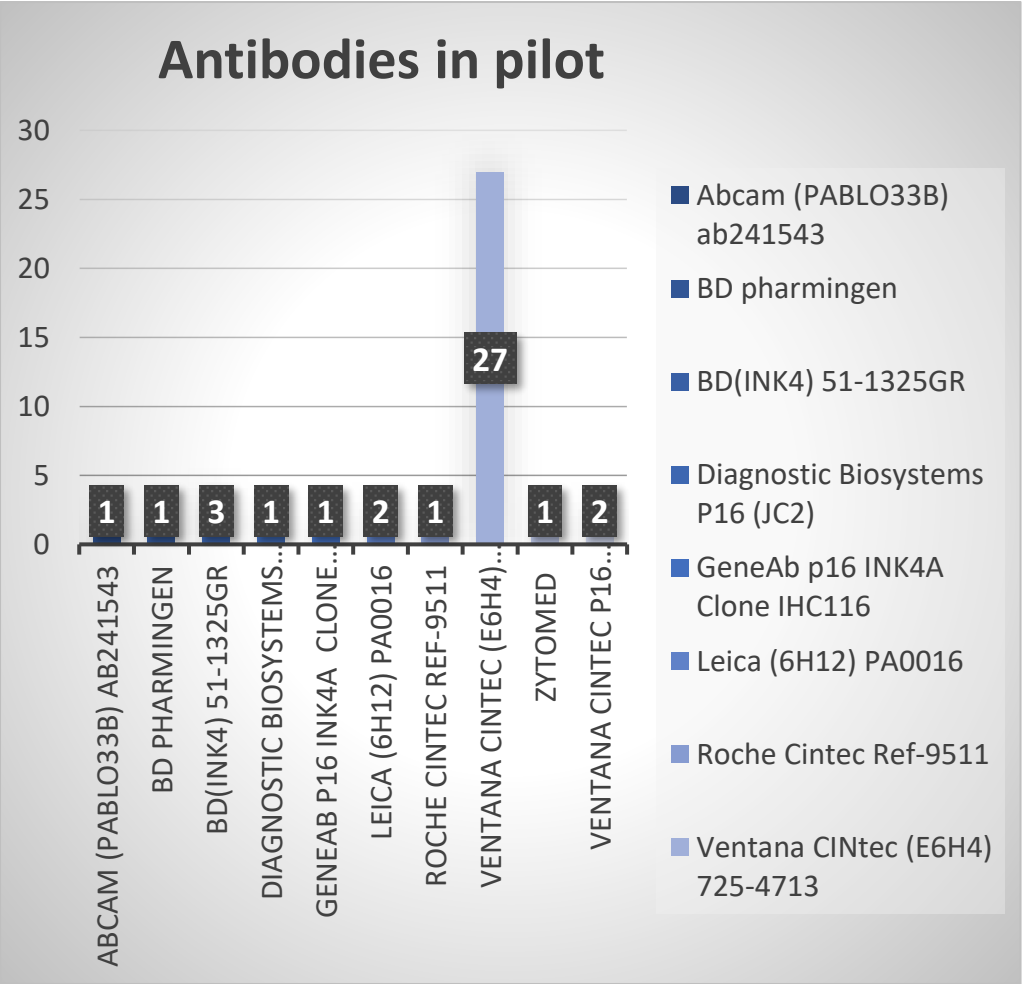
P16 Module

Platforms in Pilot



Platforms in Run 140

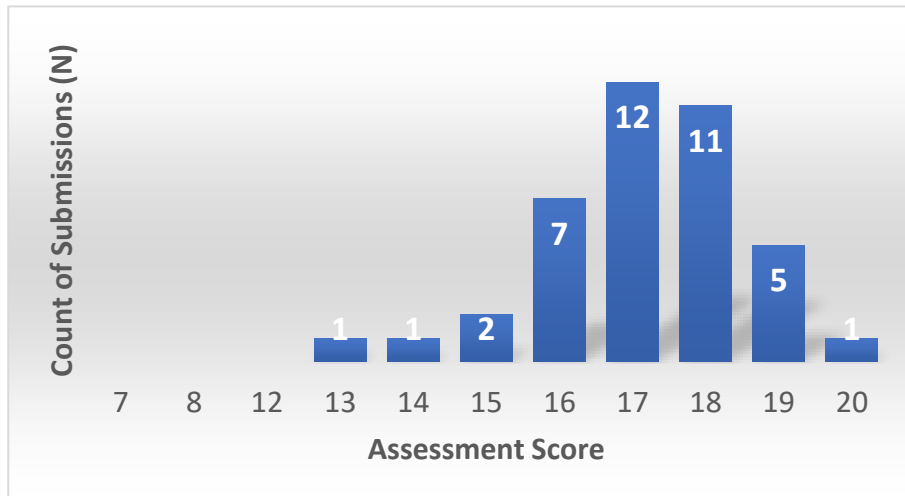




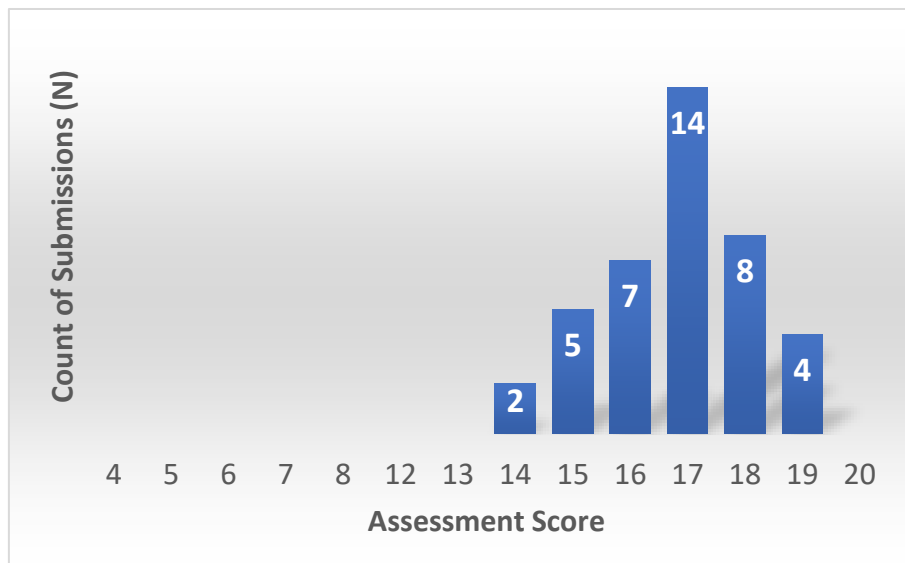
- The Ventana CIntec (E6H4) antibody was the most used clone
- Used by 68% of the participants

Assessment scores Pilot

UK NEQAS PROVIDED MATERIALS



IN-HOUSE CONTROL MATERIALS



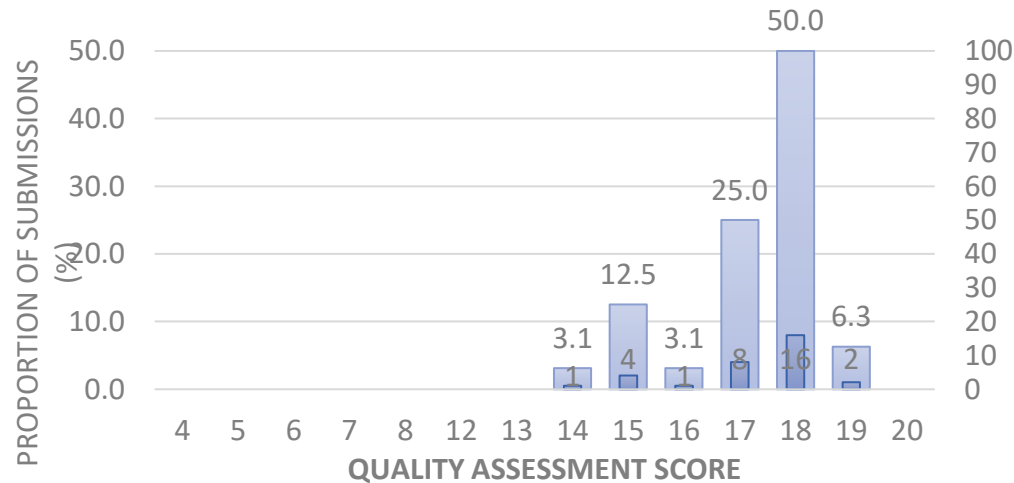
Pilot

90% achieved scores of good to excellent quality on the NEQAS material. There were no borderline or fail scores.

For the in-house material 85% were assessed as being of a good or excellent standard

Assessment scores Run 140

UK NEQAS PROVIDED MATERIALS



Run 140

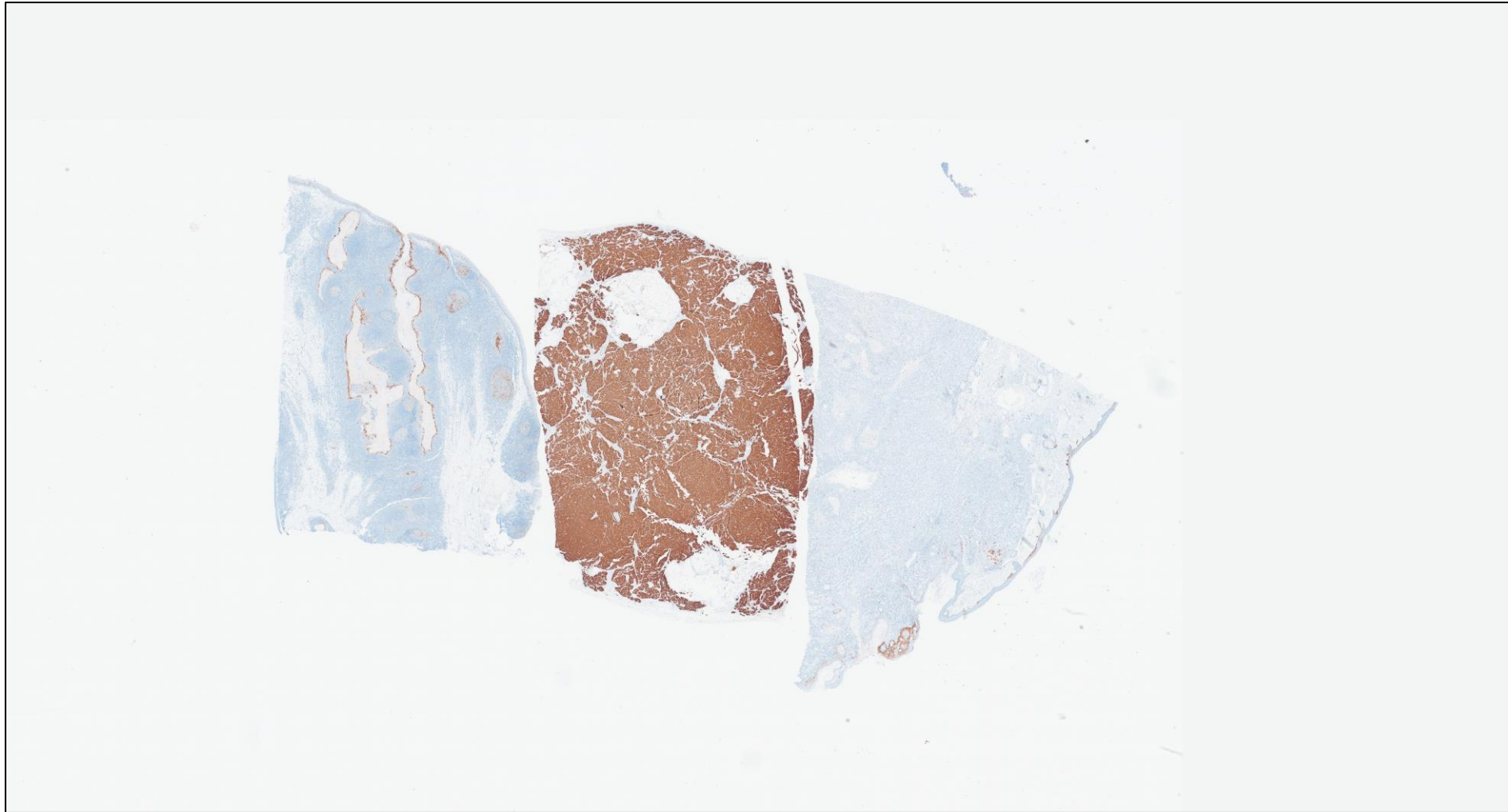
32/32 (100.0%) of participants passing the assessment

27/32 (84.3%) obtaining good to excellent stain quality results.

IN-HOUSE MATERIALS



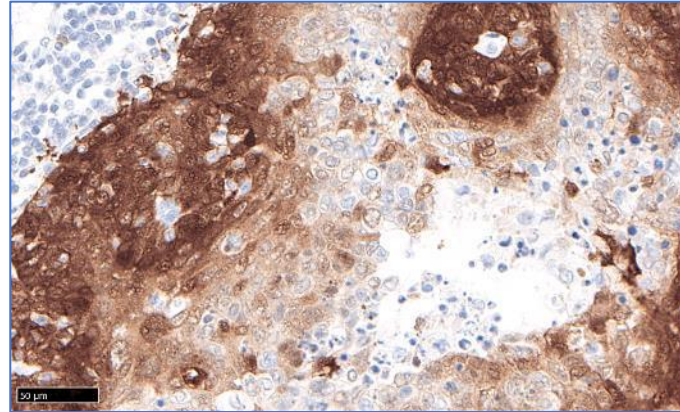
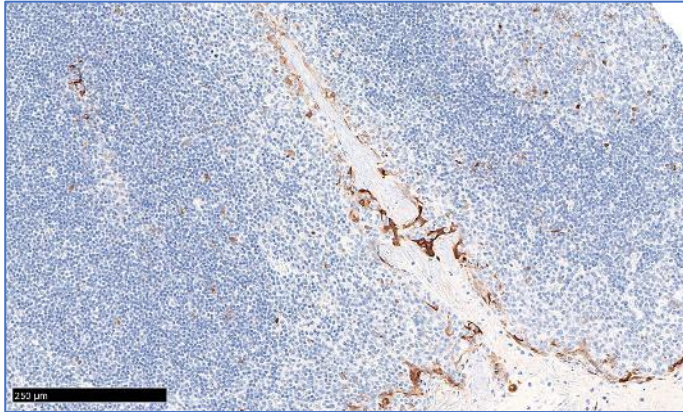
25% of participants achieved a score of 12 (Borderline)



Stained using Ventana with Cintec (E6H4) antibody.
Participant scored 20/20

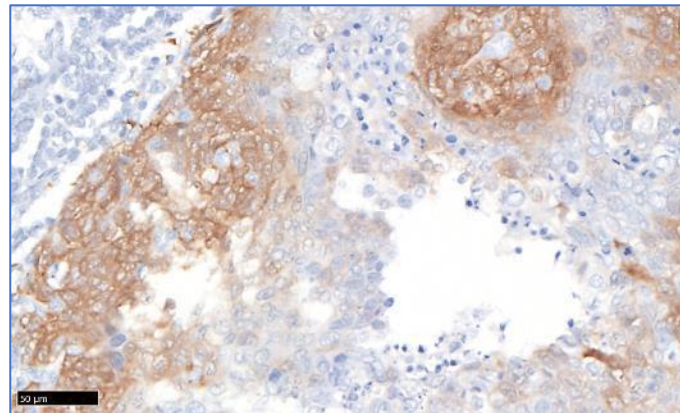
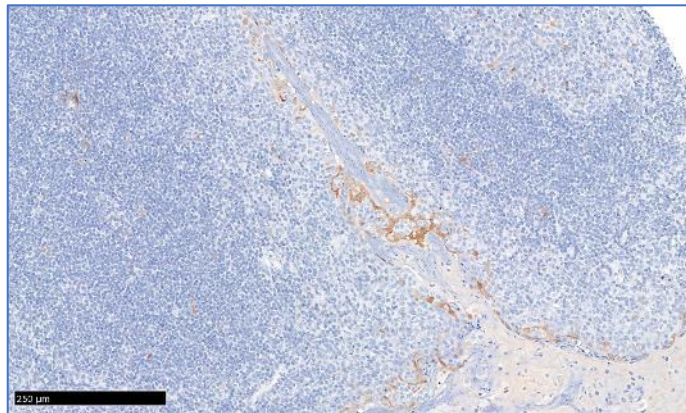
P16 Staining

Excellent and sub-optimal staining results



Top panels: tonsil and p16-positive tumour. Score 20/20

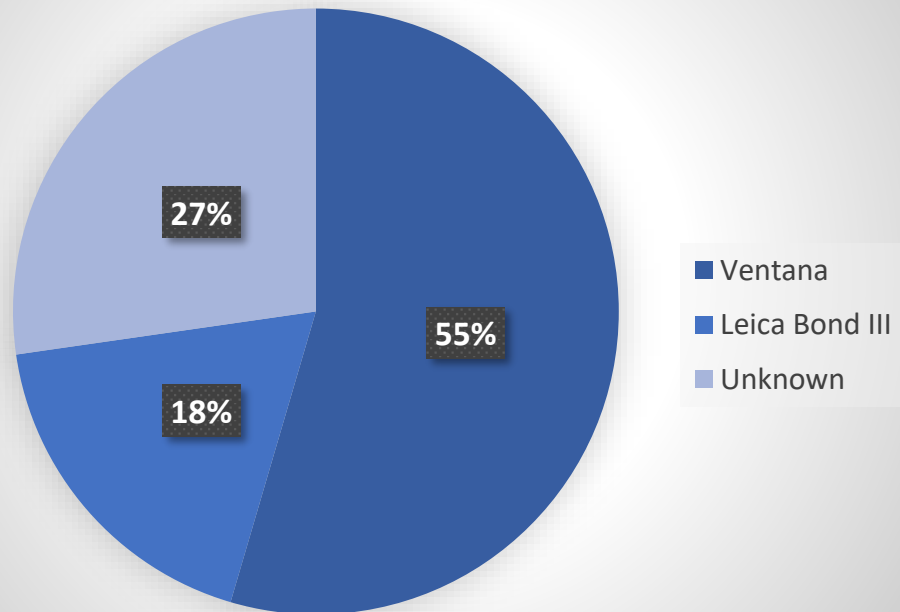
Both participants using
Ventana CINtec antibody on
BenchMark Ultra



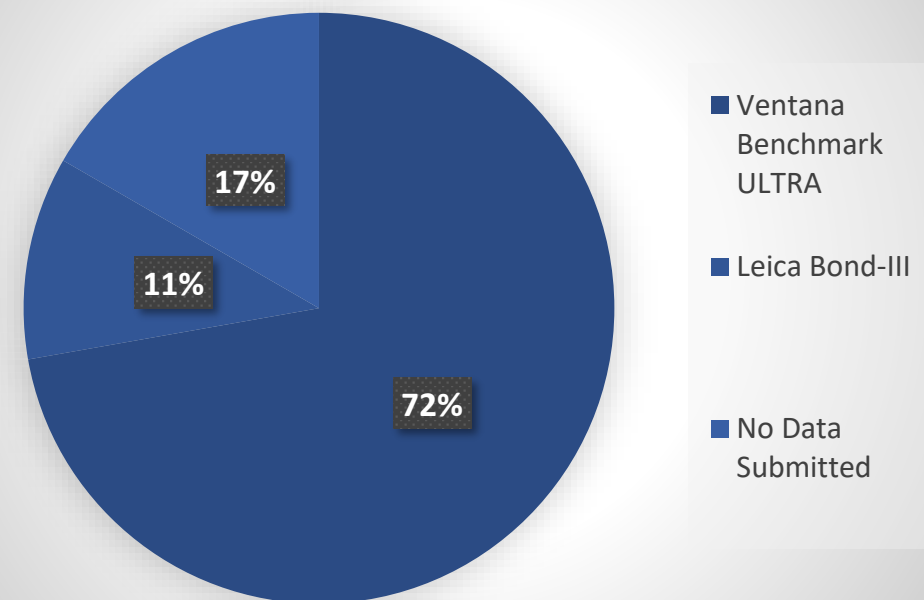
Lower panels: comparable areas. Score 13/20

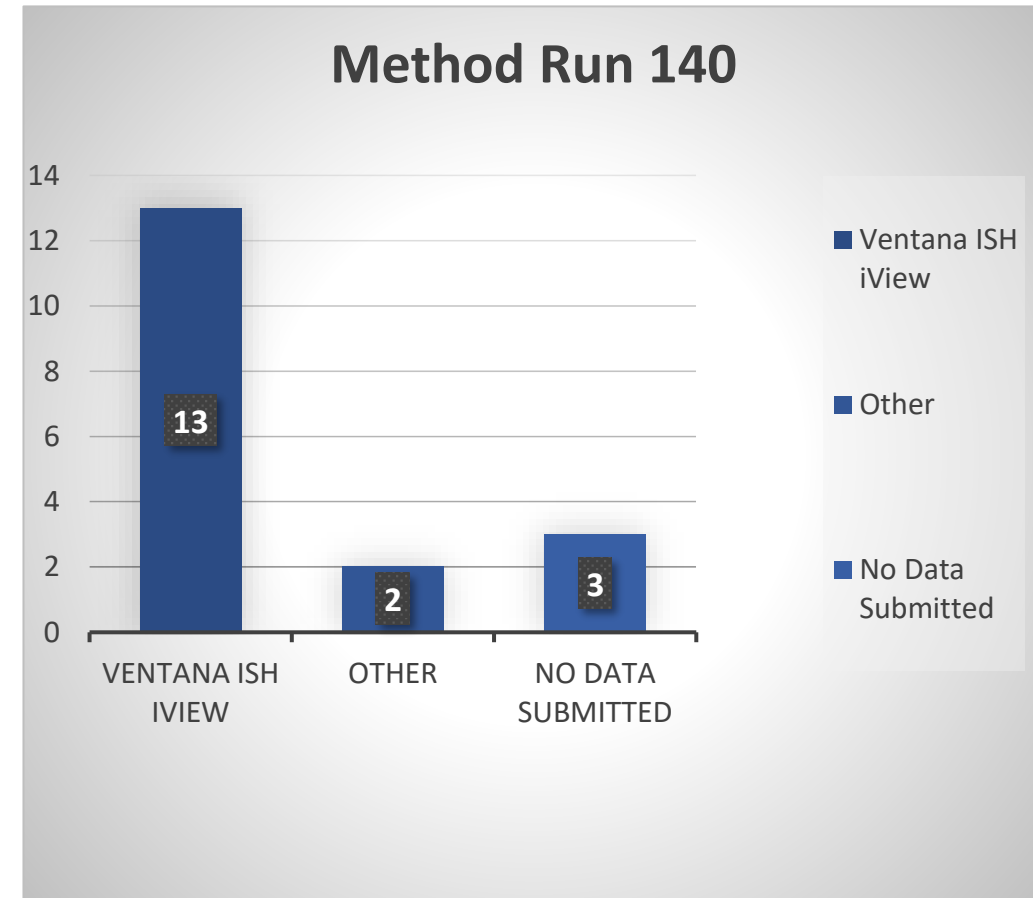
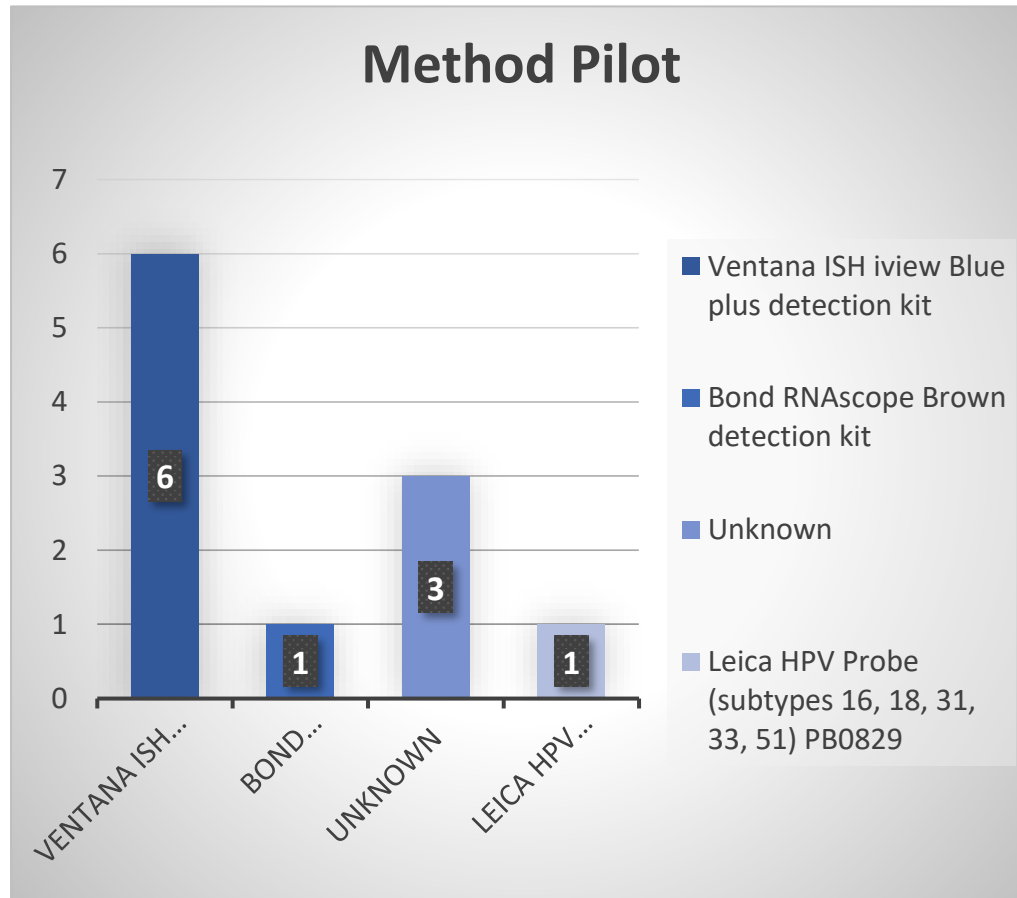
HPV Module

Platforms Pilot



Platforms Run 140

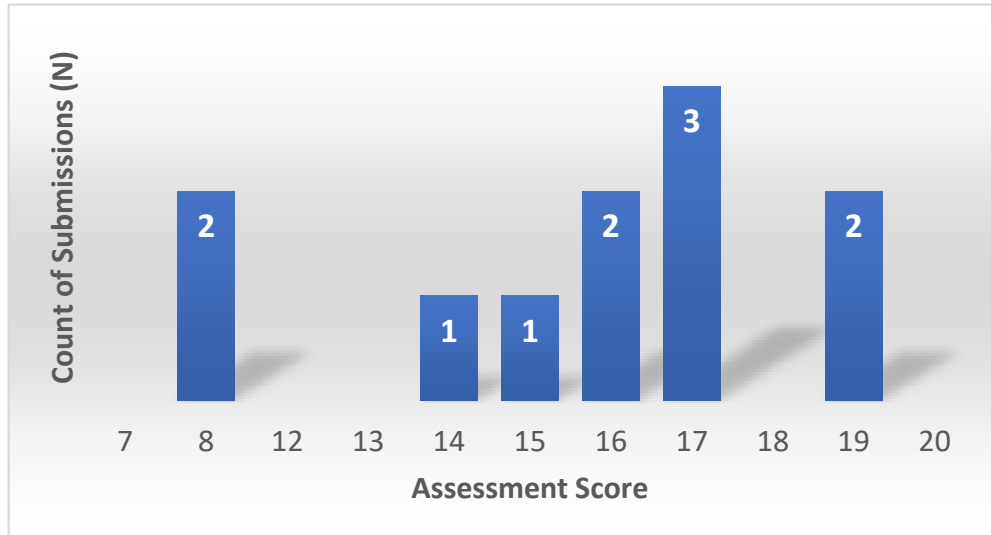




- The Ventana HPV III 16 ISH was the most common assay used by 64%
- The RNAscope HPV 16 assay was used on the Leica Bond platform by 1 laboratory, which achieved a good score.

Assessment scores Pilot

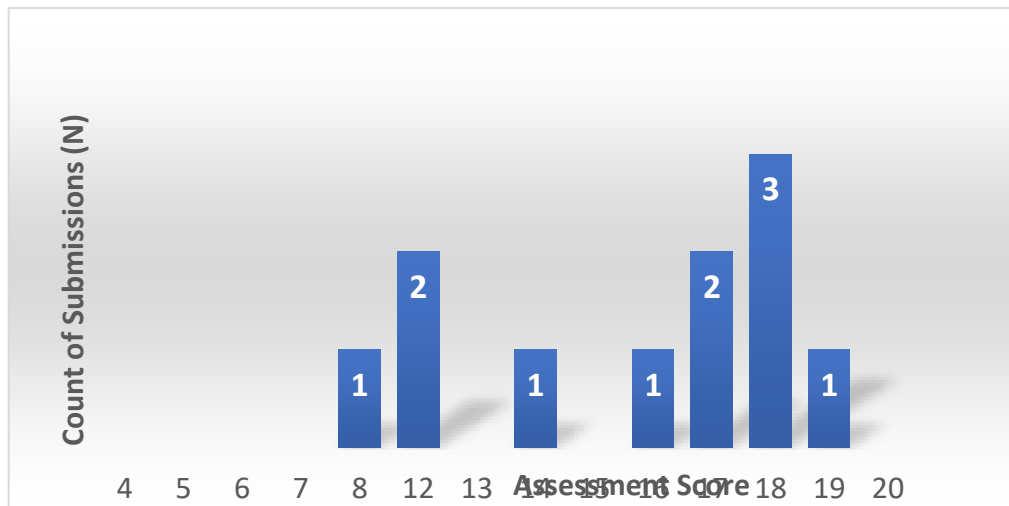
UK NEQAS PROVIDED MATERIALS



64% of participants received scores of good to excellent quality of staining

18% of participants showed an unacceptable level of staining and received a fail.

IN-HOUSE CONTROL MATERIALS

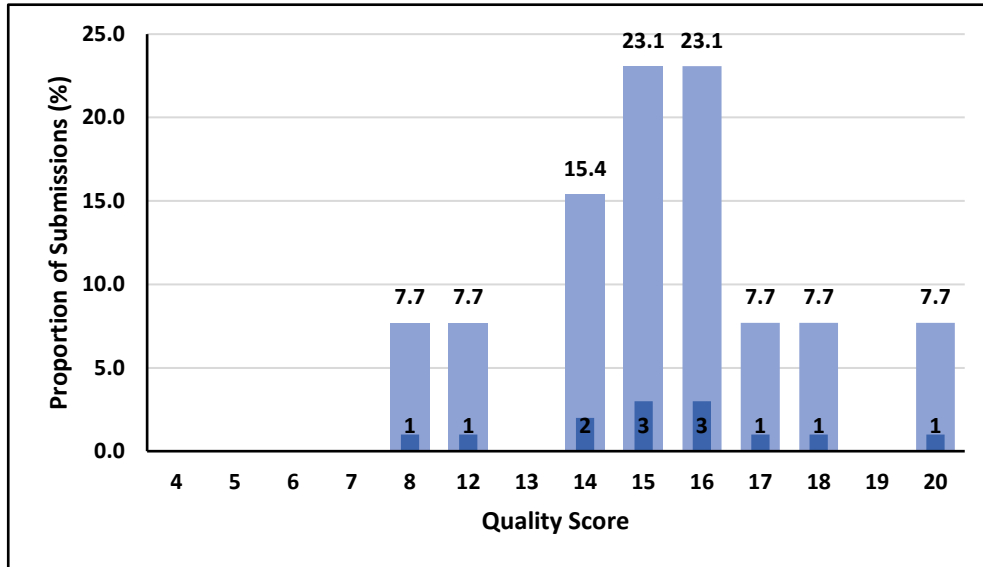


64% were assessed as being of a good or excellent standard

1 laboratory failed the assessment (score of $\leq 8/20$).

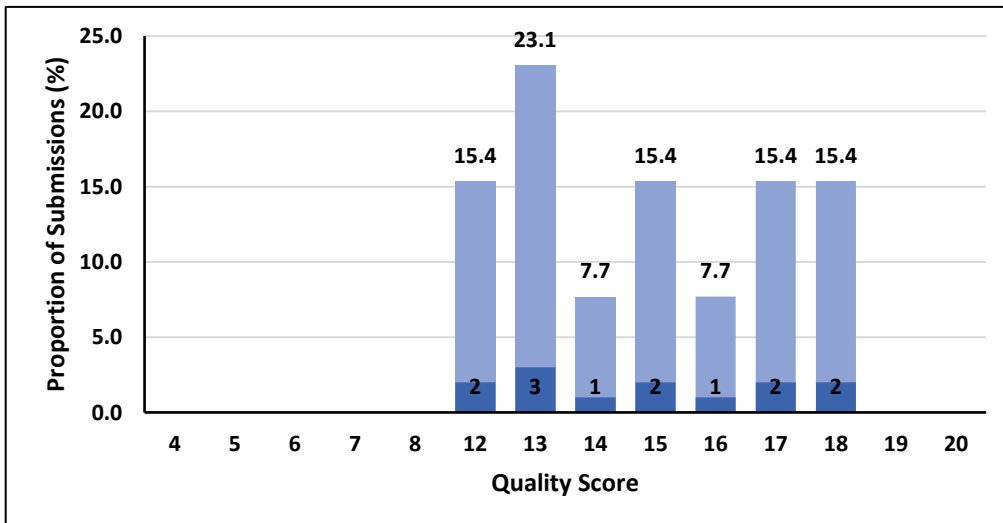
Assessment scores Run 140

UK NEQAS PROVIDED MATERIALS



- The results at this assessment continue to indicate a high standard of HPV staining quality on the UK NEQAS provided materials.
- One fail due to staining intensity weaker than expected and little staining in the positive tumour

IN-HOUSE MATERIALS



- 100% of participants passing the assessment on the in-house submissions

Excellent and sub-optimal staining results

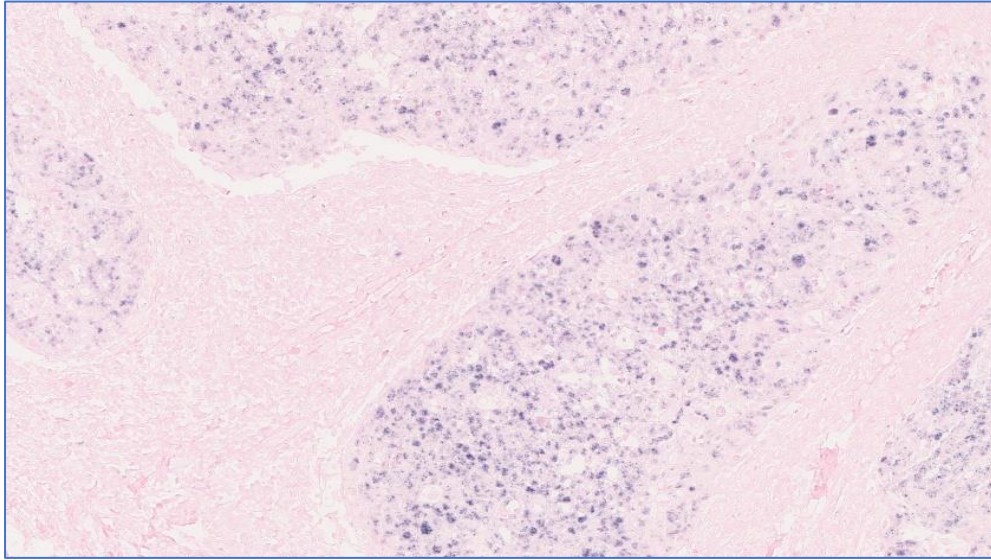


Fig 1. Participant scored: 19/20

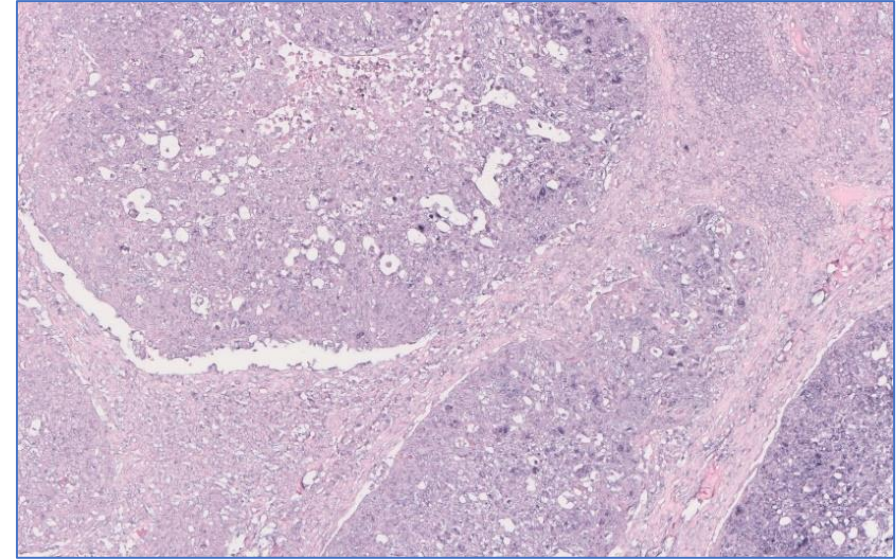
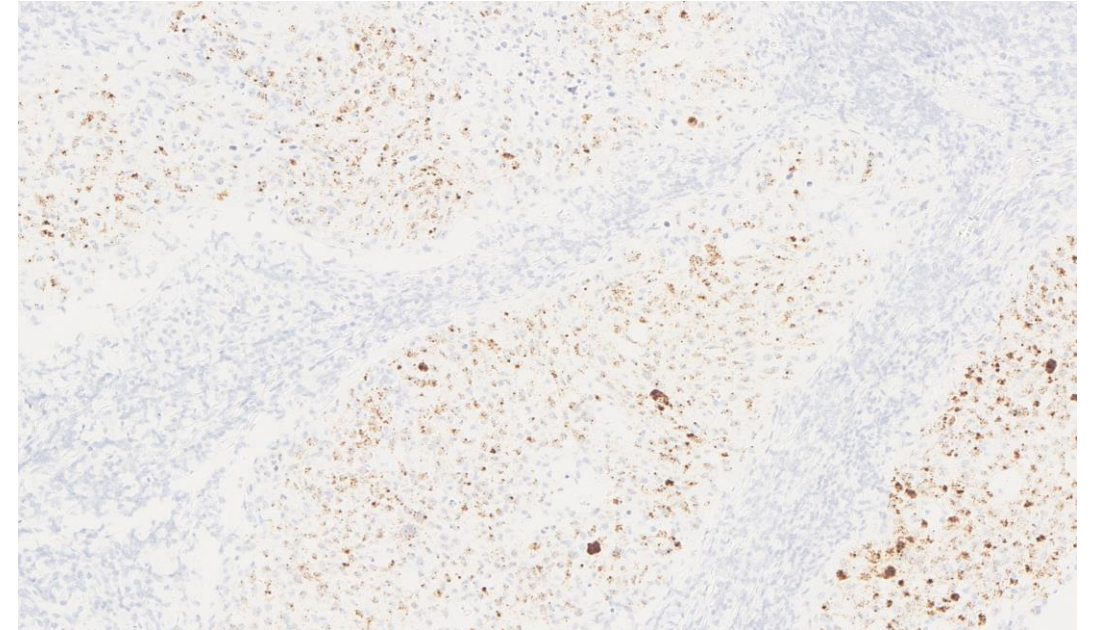
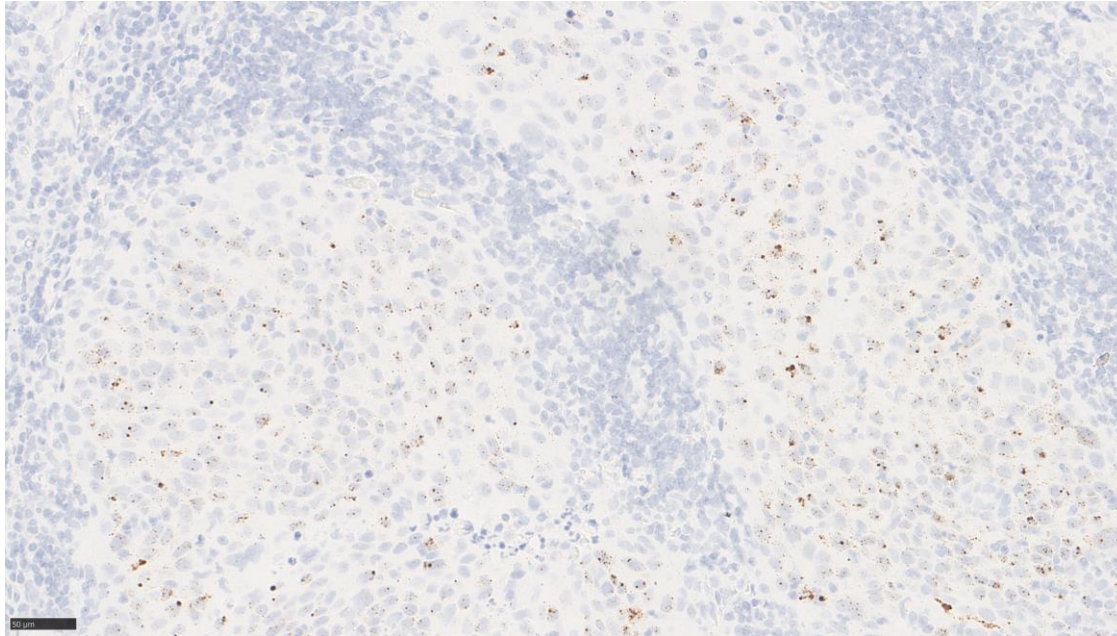


Fig 2. Participant scored: 8/20

Both samples stained using the Ventana ISH
iview Blue plus detection kit on the Ventana
Benchmark Ultra.

HPV RNA Scope Staining



Currently one laboratory using the RNA Scope method: RNAscope HPV 16 assay, RNA enzyme pre-treatment, RNAscope post-hybridisation rinse, BOND-III platform (all Leica)



- EBER module
- PDL1 for HN SCC module

