

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

Equality and health inequality impact assessment

Artificial intelligence (AI) technologies to assist histopathology for breast cancer diagnosis

Scoping

- 1 Have any potential equality issues been identified during the scoping process? If so, what are they?**

Equality issues

Some technologies are not indicated for use in men, or after treatment. People with cancer are protected under the Equality Act 2010 from the point of diagnosis. Men with breast cancer often present later and with more advanced disease.

Equality considerations

Usability: Accessibility and compatibility of technologies with assistive technologies for users with disabilities affecting vision or digital interaction should be considered.

Other considerations

Technology generalisability: The validity of AI algorithms depends on the data on which it is trained. Experts reported they were not aware of any reasons for differences in diagnostic accuracy across different sexes or ethnic groups. However, it was acknowledged that it was important to understand the representativeness of training data used to inform the algorithms to ensure diagnostic accuracy is maintained across patient groups. It is known that women with a black or South Asian background are more likely to be diagnosed at an advanced stage, and men with breast cancer often present later and with more advanced disease.

- 2 Have any potential health inequality issues been identified during the scoping process? If so, what are they?**

Equity of access and service quality: There is significant variation between histopathology services across the country due to differences in setup, workload, workforce capacity and subspecialisation, and the rate of digital adoption. It is known that outcomes in the north of England are worse than the

south. Cancer death rates are nearly 60% higher for those living in the most deprived areas of the UK compared with the least deprived. If AI technologies can improve review turnaround times, the accuracy and consistency of diagnostic reporting, and reduce variability across laboratories, this would improve equity of access to services with timely diagnosis and management.

3 What is the preliminary view as to what extent the committee needs to address the potential issues set out in questions 1 and 2?

The committee should consider all potential equality and health inequality issues and considerations when making recommendations.

Indications for use will be reported for all technologies in scope and information on representativeness of training and validation datasets, specifically in relation to sex, ethnicity and rare tumour morphologies, will be sought and reported on for committee consideration. Scenario analyses may consider the impact of laboratory set up and subspecialisation (see Place of the technologies in the pathway).

4 Has any change to the draft scope been agreed to highlight the potential equality or health inequality issues set out in questions 1 and 2 following the scoping workshop and scope consultation?

All equality considerations and other considerations have been included in the scope.

5 Has the stakeholder list been updated as a result of additional equality or health inequality issues identified during the scoping process?

No additional stakeholders related to potential equality issues have been identified during the scope process.

Approved by senior responsible officer: Janet Robertson

Date: 29/04/2026