

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE

DIAGNOSTICS ASSESSMENT PROGRAMME

Equality impact assessment – Early value guidance development

Artificial Intelligence-derived software to analyse chest X-rays for suspected lung cancer in primary care referrals

Consultation

1. Have the potential equality issues identified during the scoping process been addressed by the committee, and, if so, how?

Potential equality issues were discussed both in the scoping consultation and assessment subgroup meeting on 15 November 2022. The following were identified as potential equality issues relating to the condition:

- People with lung cancer may be classified as having a disability and therefore protected under the Equality Act 2010 from the point of diagnosis.
- Incidence rates for lung cancer in the UK are highest in people aged 85 to 89 (Cancer Research UK 2016-2018).
- Lung cancer is more common in men than in women. But over time, lung cancer rate in men has become lower, whereas the rate in women has increased.
- There are differences in the rates of lung cancer between ethnic groups. In men, lung cancer is most common in white men and men of Bangladeshi family background. In women, lung cancer is most common in white women.
- The incidence and mortality of lung cancer are higher in deprived communities.
- Lung cancer also disproportionately affects those that may not frequently engage with health services.

The following were identified as potential equality issues relating to the technology:

- If the software has been developed and validated in populations in which particular groups (such as people from different ethnic groups, age, or people with lung conditions other than cancer) have been underrepresented, it may perform differently in these groups than data suggests.

Ethnicity, age, sex and socio-economic status were included as subgroups in the scope. None of the studies summarised in the external assessment report included outcomes for these subgroups.

2. Have any other potential equality issues been raised in the diagnostics assessment report, and, if so, how has the committee addressed these?

No additional potential equality issues were raised in the diagnostics assessment report.

3. Have any other potential equality issues been identified by the committee, and, if so, how has the committee addressed these?

The committee noted that detection of lung nodules and other abnormalities can be difficult in younger women who do not smoke and noted that if using the software helped to improve lung cancer detection, it would be particularly beneficial to this group.

4. Do the preliminary recommendations make it more difficult in practice for a specific group to access the technology compared with other groups? If so, what are the barriers to, or difficulties with, access for the specific group?

N/A

5. Is there potential for the preliminary recommendations to have an adverse impact on people with disabilities because of something that is a consequence of the disability?

N/A

6. Are there any recommendations or explanations that the committee could make to remove or alleviate barriers to, or difficulties with, access identified in questions 4 or 5, or otherwise fulfil NICE's obligations to promote equality?

N/A

7. Have the committee's considerations of equality issues been described in the early value guidance consultation document, and, if so, where?

The committee's considerations of the importance of evidence in subgroups such as different gender, ethnic groups, or people living with lung conditions other than cancer are described in section 3.9 of the early value guidance consultation document.

Approved by Associate Director: Rebecca Albrow

Date: 14/03/2023

Early value guidance document

8. Have any additional potential equality issues been raised during the consultation, and, if so, how has the committee addressed these?

The committee highlighted that conditions such as scoliosis or morbid obesity can impact the ability to get a high-quality X-ray. Therefore, the committee recommended that further research is needed to assess whether the software works in cases when it is hard to get high-quality images.

9. If the recommendations have changed after consultation, are there any recommendations that make it more difficult in practice for a specific group to access the technology compared with other groups? If so, what are the barriers to, or difficulties with, access for the specific group?

Recommendations have not changed after consultation.

10. If the recommendations have changed after consultation, is there potential for the preliminary recommendations to have an adverse impact on people with disabilities because of something that is a consequence of the disability?

Recommendations have not changed after consultation.

11. If the recommendations have changed after consultation, are there any recommendations or explanations that the committee could make to remove or alleviate barriers to, or difficulties with, access identified in questions 2 and 3, or otherwise fulfil NICE's obligations to promote equality?

Recommendations have not changed after consultation.

12. Have the committee's considerations of equality issues been described in the diagnostics guidance document, and, if so, where?

The committee's considerations of the importance of evidence in subgroups such as people with scoliosis or morbid obesity are described in section 3.12 of the early value guidance document.

Approved by Associate Director (name): Rebecca Albrow

Date: 10/07/2023