

**NATIONAL INSTITUTE FOR HEALTH AND CARE
EXCELLENCE**

NICE guidelines

**Equality and health inequalities assessment (EHIA)
template**

Blood transfusion (update)

The considerations and potential impact on equality and health inequalities have been considered throughout the guidance development, maintenance and update process according to the principles of the NICE equality policy and those outlined in [Developing NICE guidelines: the manual](#).

This EHIA relates to:

Blood transfusion (update)

Equality and health inequalities assessment (EHIA)

Blood transfusion (update)

STAGE 2. Informing the scope

Blood transfusion (update)

Date of completion: 10/08/2025

Focus of guideline or update: whether to widen NICE's currently recommended use of tranexamic acid in surgery in adults and children to reduce blood loss and so to reduce the risk of blood transfusion

For short updates where there is no scoping workshop or scope consultation, questions relating to these in stage 2 can be noted 'not applicable'.

2.1 What approaches have been used to identify potential equality and health inequalities issues during the check for an update or during development of the draft scope?

- [Existing equality impact assessment](#) on the guideline topic
- Existing NIHR review associated with the topic
- Discussion with topic experts ahead of protocol meeting
- Reviewing literature on the topic identified by informal search
- Discussion with committee members at the protocol meeting.

2.2 What potential equality and health inequalities issues have been identified during the check for an update or during development of the draft scope?

1. *Protected characteristics outlined in the Equality Act 2010 (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, sexual orientation)*

If NICE were to widen the recommendation for tranexamic acid to include patients expected to lose less than 500ml of blood, it could potentially impact various groups protected under the Equality Act 2010 differently.

Sex and gender reassignment: The committee raised that it is more likely for women to reach the transfusion threshold than it is for men (while women have lower average haemoglobin levels, the blood transfusion threshold is the same for men and women). It has been shown in studies investigating the use of tranexamic acid for trauma that healthcare professionals prescribed females tranexamic acid less often than males ([Nutbeam, et al. 2022](#)). The reasons for this have not been investigated but may relate to the association of increased thrombotic events that are seen with prolonged use of tranexamic acid for heavy menstrual bleeding ([Meaidi, et al. 2021](#)). There is no information about the impact on intersex people. While this may be an associated factor, decisions about whether someone is of a specific sex is influenced by their gender presentation. Therefore, there is potential for trans people to be affected by this inequality through multiple pathways (attributing them to their gender presentation or to a perceived gender presentation for non-binary people or to their sex assigned at birth).

Race: When having surgery, Black people ([Qian, et al. 2014](#), [O'Shaughnessy, et al. 2022](#)) and Hispanic people ([O'Shaughnessy, et al. 2022](#)) were more likely to receive blood transfusions than White people. This is more pronounced at the intersection of race and gender. The reason for this is likely multifactorial. The current UK setting has a significant call for people from all communities and ethnic backgrounds to donate blood as better blood type matches can be found from blood donors from the same ethnic backgrounds. NHS blood and transplant report that fewer than 5% of donors are from these communities. Therefore, providing alternatives for blood transplants is useful so blood can be provided to people who need it (for example: people with thalassaemia/sickle cell, who are more likely in people with South Asian or Mediterranean and Black African or Black Caribbean backgrounds respectively).

Age: Older adults can be at a higher risk of surgical bleeding ([Quintero, et al. 2016](#)). However, this should not be used as an absolute reason to reject surgery. Providing options to reduce the change of major blood loss is useful for improving outcomes. The committee discussed how older adults may also be more likely to receive blood transfusions more early, and so having alternative options is more beneficial.

Disability: Disabled people with specific health conditions might be more likely to develop complications from blood loss and transfusions. For example, individuals with cardiovascular comorbidities could have a larger impact from significant blood loss. People with more comorbidities are more likely to have greater inequality in this area.

Pregnancy and maternity: Pregnant women and trans people undergoing surgery might have different risks associated with blood loss and transfusions. The use of tranexamic acid could potentially reduce these risks, but it would need careful consideration of any effects on pregnancy. Tranexamic acid has shown no evidence of teratogenicity in animal studies ([BNF](#)). However, the evidence is limited. It is advised to only be used if the

potential benefit outweighs the risk. A small amount of the medication is present in breast milk, but the antifibrinolytic effect on the infant is unlikely.

Religion and belief: Blood products are unlikely to be accepted by some religious groups under all or some circumstances (for example: Jehovah's Witnesses). Providing alternatives to blood transfusion may provide an acceptable option.

2. *Socioeconomic deprivation (for example, variation by area deprivation such as Index of Multiple Deprivation, National Statistics Socio-economic Classification, employment status, income)*

Post-operative complications are more likely for people who are more socioeconomically deprived ([Cain, et al. 2022](#), [Wan, et al. 2021](#)). According to the [Global Burden of Disease 2021](#) dataset, death from adverse effects of medical treatment is more likely as you move away from London and across the country (varying from approximately 1 death per 100,000 to 3 deaths per 100,000). Intersectionality exists between socioeconomic deprivation and other groups in section 1, which can accentuate health inequalities.

3. *Geographical area variation (for example, geographical differences in epidemiology or service provision- urban/rural, coastal, north/south)*

NICE is aware that its current guidance on tranexamic acid has not been well implemented, as shown in national audits. Part of the reason for this may be difficulty in implementing the 'expected to lose more than 500 ml' threshold. If NICE widens its recommended use of tranexamic acid, this may remove this barrier and so help to equalise access to tranexamic across the NHS not only in the low blood loss risk group, but also in the currently eligible population.

4. *Inclusion health and vulnerable groups (for example, vulnerable migrants, people experiencing homelessness, people in contact with the criminal justice system, sex workers, Gypsy, Roma and Traveller communities, young people leaving care and victims of trafficking)*

There is no specific action from this work that is likely to be different for inclusion health and vulnerable groups. There are intersections with other areas identified in the sections above and these groups face larger areas of health inequalities. Ensuring that services to provide this care are accessible to these groups is important for reducing inequalities ([NHS, 2023](#)).

2.3 How can the identified equality and health inequalities issues be further explored and considered at this stage of the development process?

By including a review looking at safety, the committee considered some of the subgroups where safety may be a concern. Ultimately they agreed that stratification by pregnancy status was important due to the different bleeding risk that pregnant women, trans men and non-binary people could have. They also agreed that subgrouping by presence of comorbidities was important. The aim to doing these steps was to provide reassurance that there are no concerns prescribing the medication in these groups and provide stronger messaging to address health inequalities in the recommendations.

The review question on efficacy will aim to help reduce inequalities by providing access to treatment that will reduce the need for blood products by reducing bleeding levels. Being aware of communication in recommendations to ensure that the identified groups are provided the care adequately will be important for ensuring that inequality gaps are narrowed.

It is not expected that further research recommendations will be required in this area at this time.

2.4 Do you have representation from stakeholder groups that can help to explore equality and health inequalities issues during the consultation process including groups who are known to be affected by these issues? If not, what plans are in place to address gaps in the stakeholder list?

Yes, we do. Public Involvement advice has been sought on the stakeholder list.

2.5 How will the views and experiences of those affected by equality and health inequalities issues be meaningfully included in the guideline development process going forward?

Through committee discussion, and stakeholder consultation.

2.6 If applicable, what questions will you ask at the draft scope stakeholder consultation about the guideline/update and potential impact on equality and health inequalities?

Not applicable

2.7 Has it been proposed to exclude any population groups from the scope? If yes, how do these exclusions relate to any equality and health inequalities issues identified?
No

Completed by developer Clifford Middleton and George Wood

Date: 10/8/2025

Approved by committee chair: Ian Bernstein

Date: 10/08/2025

Approved by NICE quality assurance lead: Kate Kelley

Date: 15/08/2025

STAGE 4. Development of guideline or topic area for update

(to be completed by the developer before consultation on the draft guideline or update)

Blood transfusion (update)

Date of completion: 23/09/2025

Focus of guideline or update: whether to widen NICE's currently recommended use of tranexamic acid in surgery in adults and children to reduce blood loss and so to reduce the risk of blood transfusion

4.1 From the evidence syntheses and the committee's considerations thereof, what were the main equality and health inequalities issues identified? Were any **further** potential issues identified (in addition to those identified during the scoping process) or any gaps in the evidence for any particular group?

The areas emphasised by the committee during the development phase included:

Pregnant women, trans men and non-binary people – this group represents a population that are at a higher risk of bleeding, can have a higher risk of thrombotic complications and have a higher chance to represent an otherwise generally healthy population and so need specific consideration when prescribing additional medication that may have undesirable effects.

Women – guidance for transfusion in women reflects that they should have blood transfusions at the same threshold as men (80 g/litre) while their baseline haemoglobin is often lower and they have a higher risk of conditions like iron deficiency anaemia.

People from East, South and South East Asian, Mediterranean, Black African and Black Caribbean backgrounds – people with a higher risk of thalassaemia and sickle cell disease are more likely to benefit from alternatives to blood transfusion and as a community this helps to supply blood to the people who need it most. These populations also have a higher risk of bleeding and complications from bleeding generally.

Age – children with blood loss can be more susceptible to small amounts of blood loss having substantial effects (due to the proportion of blood loss being more significant overall). Therefore, there is a smaller buffer of protection when deciding to transfuse. There is also a higher risk of transfusion complications. The use of tranexamic acid is also known to have problems and is treated with caution, and lower doses are typically used.

Religion and belief – blood products may not be accepted by some people under all or some circumstances (for example: Jehovah’s Witnesses). Providing alternatives to blood transfusion may provide an acceptable option.

Geographical variations in practice – NICE is aware that its current guidance on tranexamic acid has not been well implemented, as shown in national audits. Part of the reason for this may be difficulty in implementing the ‘expected to lose more than 500 ml’ threshold. If NICE widens its recommended use of tranexamic acid, this may remove this barrier and so help to equalise access to tranexamic across the NHS not only in the low blood loss risk group, but also in the currently eligible population.

4.2 How have the committee’s considerations of equality and health inequalities issues identified in 2.2, 3.2 and 4.1 been reflected in the guideline or update and any draft recommendations?

The safety review included stratification for pregnancy and this was considered separately to non-pregnant populations.

The committee discussed other national programmes that were being considered to ensure optimal national implementation to reduce the chance of geographical variations in practice, while considering equitable care as a component in this.

Age, sex and comorbidities were included as key confounding variables for deciding the inclusion of non-randomised studies within the review. Comorbidities were considered in a subgroup analysis to consider if there was heterogeneity in the analysis. This did not resolve heterogeneity.

Data about whether studies included children and adults was separated qualitatively and discussed with the committee.

Presence of preoperative anaemia was separated qualitatively and discussed with the committee.

Recommendations were made to provide tranexamic acid to more people than the previous recommendations. This means that there is more availability for people more likely to bleed, people with a greater need for blood transfusions and people who would prefer to not have blood transfusions. This will help to reduce health inequalities.

The guideline provides a clearer statement about who should receive tranexamic acid which is easier to implement than the previous guidance, which will help to reduce geographical variations in care.

4.3 Could any draft recommendations potentially increase inequalities?

None of the draft recommendations are expected to increase inequalities. The committee took into account inequalities that could be faced by children and young people and made separate, weaker recommendations for this group reflecting the strength of the evidence.

Otherwise, the committee agreed recommendations that would reduce inequalities instead, providing greater options to all groups and reducing inequities geographically across NHS services.

4.4 How has the committee's considerations of equality and health inequalities issues identified in 2.2, 3.2 and 4.1 been reflected in the development of any research recommendations?

The committee made research recommendations for children and young people reflecting the uncertainty in the evidence for this group.

4.5 Based on the equality and health inequalities issues identified in 2.2, 3.2 and 4.1, do you have representation from relevant stakeholder groups for the guideline or update consultation process, including groups who are known to be affected by these issues? If not, what plans are in place to ensure relevant stakeholders are represented and included?

Currently all groups are represented in the consultation process apart from:

- People with a wider understanding of ethnic health inequalities in health care – therefore, have extended an invitation to the NHS Race & Health Observatory to be involved in the consultation process
- People with sickle cell disease – therefore, have extended an invitation to the Sickle Cell Society to be involved in the consultation process
- People who refuse blood transfusions based on religious beliefs (for example: the Jehovah's Witnesses) – therefore, have extended an invitation to the Jehovah's Witnesses to be involved in the consultation process

4.6 What questions will you ask at the stakeholder consultation about the impact of the guideline or update on equality and health inequalities?

No questions are planned to be asked at stakeholder consultation about the impact of the update on equality and health inequalities.

FINAL

Completed by developer: George Wood

Date: 07/10/2025

Approved by committee chair: Ian Bernstein

Date: 30/10/25

Approved by NICE quality assurance lead: Kate Kelley

Date: 30/10/2025

STAGE 5. Revisions and final guideline or update

(to be completed by the developer before guidance executive considers the final guideline or update)

Blood transfusion (update)

Date of completion: 26/01/2026

Focus of guideline or update: whether to widen NICE’s currently recommended use of tranexamic acid in surgery in adults and children to reduce blood loss and so to reduce the risk of blood transfusion

5.1 How inclusive was the consultation process on the draft guideline in terms of response from groups (identified in box 2.2, 3.2 and 4.1) who may experience inequalities related to the topic?

The consultation was inclusive of all registered stakeholders. No special steps outside normal NICE processes were taken to encourage feedback from any patient groups. However, a special effort was made to encourage feedback from surgeons and other relevant professionals, given the issues with implementation of the previous guidance highlighted by the National Comparative Audit of QS138.

5.2 Have any **further** equality and health inequalities issues beyond those identified at scoping and during development been raised during the consultation on the draft guideline or update, and, if so, how has the committee considered and addressed them?

1) *Protected characteristics outlined in the Equality Act 2010 (age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex, sexual orientation)*

Pregnancy was raised during consultation with some stakeholders questioning the applicability of the committee’s recommendation in that group. It was subsequently identified that pregnancy was excluded from the scope of NG24. This was discussed with the NICE QA team and agreed that, since this partial update inherits the population of its parent guideline, it would be necessary to make it clear in the final version that pregnancy was excluded. The NICE committee agreed. However, it also asked NICE to consider the possibility of future work to explore the role of TXA in surgery in pregnant people,

including all of the following: instrumental birth, caesarean birth, and incidental surgery during pregnancy.

2) *Socioeconomic deprivation (for example, variation by area deprivation such as Index of Multiple Deprivation, National Statistics Socio-economic Classification, employment status, income)*

None

3) *Geographical area variation (for example, geographical differences in epidemiology or service provision- urban/rural, coastal, north/south)*

None

4) *Inclusion health and vulnerable groups (for example, vulnerable migrants, people experiencing homelessness, people in contact with the criminal justice system, sex workers, Gypsy, Roma and Traveller communities, young people leaving care and victims of trafficking)*

none

5.3 If any recommendations have changed after consultation, how could these changes impact on equality and health inequalities issues?

There have been few substantive changes to the guideline as a result of consultation. The main changes should benefit people having surgery generally though. These include a new recommendation to ensure that steps are taken to prevent inadvertent intrathecal or epidural administration of tranexamic acid, a serious safety issue.

5.4 Following the consultation on the draft guideline and response to questions 4.1 and 5.2, have there been any further committee considerations of equality and health inequalities issues across the four dimensions that have been reflected in the final guideline?

No issues relating to equality other than the issue above related to pregnancy were raised at consultation.

5.5 Please provide a summary of the key equality and health inequalities issues that should be highlighted in the guidance executive report before sign-off of the final guideline or update

FINAL

none

Completed by developer: Clifford Middleton, Topic Lead

Date: 26/01/26

Approved by committee chair: Ian Bernstein FRCGP

Date: 27/01/2026

Approved by NICE quality assurance lead: Kate Kelley

Date: 03/02/2026