

# COVID-19 rapid guideline: haematopoietic stem cell transplantation

NICE guideline

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[www.nice.org.uk/guidance/ng164](https://www.nice.org.uk/guidance/ng164)

## Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the [Yellow Card Scheme](#).

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should [assess and reduce the environmental impact of implementing NICE recommendations](#) wherever possible.

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# Overview

The purpose of this guideline is to maximise the safety of patients who need haemopoietic stem cell transplantation (HSCT) and make the best use of NHS resources, while protecting staff from infection.

On **28 September 2023**, we updated the guideline to reflect changes to best practice and service organisation, which have been adapted over time throughout the pandemic.

Follow the usual professional guidelines, standards and laws (including those on equalities, safeguarding, communication and mental capacity), as described in [NICE's information on making decisions using NICE guidelines](#).

This guideline is for:

- health and care practitioners
- health and care staff involved in planning and delivering services
- commissioners
- donor registries.

It covers HSCT in adults, children and young people.

The recommendations bring together:

- existing national and international guidance and policies
- advice from specialists working in the NHS from across the UK; these include people with expertise and experience of treating patients for the specific health conditions covered by the guidance during the COVID-19 pandemic.

For advice on managing COVID-19 in children, young people and adults, see [NICE's guideline on managing COVID-19](#).

We developed this guideline using the [interim process and methods for developing rapid guidelines on COVID-19](#) in response to the rapidly evolving situation.

# 1 Minimising the risks of COVID-19

## Reducing the risk of exposure to COVID-19

- 1.1 Reduce the risk of patient and donor exposure to COVID-19 and make best use of resources (workforce, facilities, intensive care, equipment), such as by minimising inpatient and day-case admissions. **[Amended July 2022]**
- 1.2 Follow hospital policy to reduce the risk of contracting or spreading SARS-CoV-2. **[Amended September 2023]**
- 1.3 Before patients attend the transplant centre, tell them about the measures in place to keep them safe, as well as any steps they need to take. **[July 2020]**
- 1.4 All healthcare workers involved in receiving, assessing and caring for patients who have known or suspected COVID-19 should follow local guidance on infection prevention and control, including the use of personal protective equipment (PPE). **[Amended September 2023]**

## Vaccination

- 1.5 Encourage patients and donors to get vaccinated in line with the [UK government COVID-19 vaccination programme](#) and the [British Society of Blood and Marrow Transplantation and Cellular Therapy Vaccination Sub-Committee \(BSBMTCT-VSC\) guidance on COVID-19 vaccination](#). **[Amended July 2022]**

## 2 Pre-transplant care

### Transplant recipients

#### Reducing risk

- 2.1 Advise patients that for at least 2 weeks before having haematopoietic stem cell transplantation (HSCT), they should follow the professional advice from their clinical team on how best to minimise their risk of respiratory infections (including COVID-19). Guidance for clinicians and patients to support risk assessments is available on the [British Society of Blood and Marrow Transplantation and Cellular Therapy \(BSBMTCT\) website](#). **[July 2020]**
- 2.2 Test patients for respiratory viruses, including for SARS-CoV-2:
- within 7 days before admission **and**
  - on admission before starting conditioning. **[Amended September 2023]**
- 2.3 Consider deferring allogeneic HSCT if the patient has been in close contact with someone with COVID-19 in the past week. Assess the risks for the individual patient of having COVID-19 against the benefits of having HSCT without delay. **[Amended July 2022]**

#### Assessing when to use cryopreserved cells

- 2.4 Transplant centres should use fresh donations routinely and only use cryopreserved donations in exceptional circumstances. **[Amended September 2023]**
- 2.5 If cryopreserved cells are used, they should be received by the transplant centre before conditioning starts, unless exceptional circumstances mean this is not possible. **[Amended September 2023]**

## Transplant donors

### Reducing risk

- 2.6 Explain to donors the importance of minimising their risk of exposure to COVID-19 before donation. Give advice on reducing risk in line with the [UK government guidance on living safely with respiratory infections, including COVID-19](#). **[Amended July 2022]**
- 2.7 Explain to donors about the symptoms of COVID-19, and discuss transmission risks, donation restrictions and when to consider self-deferring from donating. **[Amended September 2023]**
- 2.8 This recommendation has been deleted. **[September 2023]**
- 2.9 This recommendation has been deleted. **[September 2023]**
- 2.10 Tell donors to contact the coordinating registry and the collection centre at which they donated if they develop any illness within 2 weeks after donating. **[April 2020]**

### Donors with COVID-19

- 2.11 For HPC apheresis or mononuclear cell (MNC) donors who have symptoms of COVID-19:
- defer donations by 14 days from when their symptoms resolve **or**
  - if donation is urgent and less than 14 days have passed since symptoms have resolved, refer to a designated donor medical officer for risk assessment and earlier discretionary clearance. **[Amended September 2023]**
- 2.12 For HPC marrow donors who have symptoms of COVID-19, defer donations for a period of time agreed in discussion with an anaesthetist. **[Amended September 2023]**

- 2.13 If a donor has symptoms of COVID-19 at a late stage, after conditioning has started, discuss with the donor registry and the collection centre whether a SARS-CoV-2-positive donation can be accepted safely. **[Amended September 2023]**



### 3 Post-transplant care

- 3.1 Ensure that patients are cared for in strict protective isolation. Assess the need for any procedures outside of isolation against the risk of exposing the patient to nosocomial infections, such as COVID-19. **[April 2020]**
  
- 3.2 Isolate patients who have tested positive for COVID-19 in negative pressure cubicles, or neutral pressure cubicles if this is not possible. **[April 2020]**

## 4 Service provision and organisation

- 4.1 Risk assess ambulatory transplant pathways and reflect this in the quality management plans and standard operating procedures in line with [NICE's guideline on haematological cancers](#) and [Joint Accreditation Committee International Society for Cell and Gene Therapy \(ISCT\)-Europe and European Society for Blood and Marrow Transplantation \(JACIE\) standards](#). **[Amended September 2023]**
- 4.2 This recommendation has been deleted. **[September 2023]**
- 4.3 This recommendation has been deleted. **[September 2023]**
- 4.4 This recommendation has been deleted. **[September 2023]**
- 4.5 For patients having allogeneic haemopoietic stem cell transplantation (HSCT), identify a back-up donor or cord blood unit where available in case there are problems with harvesting or transport. **[Amended September 2023]**
- 4.6 This recommendation has been deleted. **[September 2023]**
- 4.7 This recommendation has been deleted. **[September 2023]**

### Services for children and young people

- 4.8 This recommendation has been deleted. **[September 2023]**

### Services for patients with COVID-19

- 4.9 This recommendation has been deleted. **[September 2023]**

## Policies for staff returning to work after COVID-19

- 4.10 Ensure that healthcare professionals are aware of and follow the local policies of their transplant unit for returning to work after COVID-19. **[Amended July 2022]**

## Update information

**28 September 2023:** We have removed and amended recommendations throughout the guideline to reflect changes to current best practice and service organisation, which have been adapted over time throughout the pandemic.

Recommendation 1.2 was changed to better reflect current practice. Recommendation 1.4 was changed to advise following local guidance for infection prevention and control.

Recommendations 2.4 and 2.5 were changed to reflect current practice of using fresh cells routinely and cryopreserved cells only in exceptional circumstances.

We removed recommendations 2.8 and 2.9 on donor testing, and made changes to recommendations 2.2, 2.7 and 2.11 to 2.13 to reflect current practice.

We removed recommendations in section 4 on service provision and organisation that are covered by external guidance or have become embedded in routine practice during the pandemic.

**20 July 2022:** We have removed, relocated and amended recommendations throughout the guideline to reflect changes to current best practice and service organisation, which have been adapted over time throughout the pandemic. In some sections, we have removed recommendations and link instead to current national and international guidelines. Previous sections on patients with new symptoms of COVID-19; supporting staff, including staff who are isolating; and prioritising treatment have been withdrawn because changes to processes and care have become embedded in routine practice during the pandemic.

The following recommendations have been updated to better reflect current best practice:

- Recommendation 2.3 was changed to reflect that decisions about deferring allogeneic HSCT should be based on an individualised assessment.
- Recommendations 2.4 and 2.5 were amended to remove the requirement to cryopreserve all donations.
- Recommendations 2.8 and 2.9 were updated to reflect current best practice for

testing donors for COVID-19 when fresh or cryopreserved cells are being taken.

- Recommendations on donors with COVID-19 were updated to give clear, separate advice for HPC apheresis and mononuclear cell donors and for HPC marrow donors on deferring donations (recommendations 2.11 and 2.12) and current best practice on what to do if a donor tests positive at a late stage (recommendation 2.13)
- Recommendation 4.10 was amended to reflect the need for staff to follow local policies for return to work following COVID-19, which acknowledges that different transplant units may have different local policies.

**22 July 2021:** We made changes on testing patients for viruses, including SARS-CoV-2, to note that a polymerase chain reaction (PCR) test should be used as the gold standard (recommendation 2.2).

**10 February 2021:** We amended our recommendations on when to defer donations and HSCT for donors and recipients pre-transplant, in line with updated BSBMTCT guidance. We also updated our guidance for staff who are self-isolating, and added a recommendation on vaccination.

**29 July 2020:** We made changes in recommendations on:

- advice for patients to limit the number of family members who attend appointments (recommendation 1.2) and explaining measures to limit infection risk (recommendation 1.3)
- advice for patients on minimising risk of respiratory infections before transplantation (recommendation 2.1)
- testing for respiratory viruses before transplantation (recommendation 2.2)
- risk assessments for ambulatory transplant pathways (recommendation 4.1)
- what to do when a centre is temporarily closed (recommendation 4.4)
- assessing the viability of cryopreserved stem cells (recommendation 4.7)
- pathways and accommodations for patients who test positive for COVID-19 (recommendation 4.9).

We have also removed recommendations that advised deferring most autologous and allogeneic haematopoietic stem cell transplants, and deferring transplants if further

treatment or immunosuppression would put them at more risk from COVID-19 in the community. This is to reflect changes in the risk of infection and the capacity in services.

### **Minor changes since publication**

**1 June 2020:** We amended a cross reference to link to UK government guidance on managing exposure to COVID-19 in hospital settings. We also aligned the recommendations with current government advice on social distancing.

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