



Threshold for Platelets (T4P)

What is the trial about?

To define the platelet count below which critically ill patients should receive a platelet transfusion prior to an invasive procedure.

Patients are randomly allocated to a platelet transfusion threshold below which they should be given a platelet infusion prior to a low bleeding-risk procedure (typically insertion of a central line). If their platelet count is above the threshold they do not receive a platelet infusion prior to the procedure.

Which patients are eligible?

- Adults in Critical Care (or accepted for admission) AT ANY TIME during their admission
- Platelet count $<50 \times 10^9/L$
- Planned to undergo a specified* *low bleeding risk invasive procedure* OR platelet transfusion being considered for an 'other' procedure

PTO: procedures listed on reverse

Patients are screened throughout admission by the local research team & trained members of the clinical team, also involving the bedside staff – eligibility is discussed with the treating doctor in charge of the patient's care for that shift.
Patients are entered into the trial by trained research &/or clinical staff using a quick online system. This is communicated to the bedside team.

How to help identify patients

Review each platelet count & contact research team if platelet count $<50 \times 10^9/L$

Contact research team here:

What are the trial groups that the patient could be randomised to & what do they mean?

Platelet transfusion threshold

$<10 \times 10^9/L$

Platelet transfusion threshold

$<20 \times 10^9/L$

Platelet transfusion threshold

$<30 \times 10^9/L$

Platelet transfusion threshold

$<40 \times 10^9/L$

Platelet transfusion threshold

$<50 \times 10^9/L$

EXAMPLE 1

Patient's platelet count $38 \times 10^9/L$ and for insertion of central line.
Randomised to <40 threshold.

Therefore **GIVEN** platelets prior to procedure

EXAMPLE 2

Patient's platelet count $38 \times 10^9/L$ and for insertion of central line.
Randomised to <20 threshold.

Therefore **NOT GIVEN** platelets prior to procedure

Clinical actions required if the patient is in the trial

If patient's platelet count is **BELOW** allocated threshold:
GIVE a platelet transfusion prior to the procedure

If patient's platelet count is **ABOVE** allocated threshold:
DO NOT GIVE a platelet transfusion prior to the procedure

Patient remains in their allocated group for duration of critical care admission.

For all subsequent invasive procedures, document whether procedure is considered low bleeding risk or not. Record all platelet transfusions given (date / time / reason)

CONSENT

This trial is approved for research without prior consent / deferred consent – this means that the patient can be entered into the trial without consent. This will then be followed up with the family and patient by the research team as soon as possible.

INFORMATION FOR PATIENTS & FAMILY

The family, and the patient on recovery, will be given an information sheet when approached by the research team. It is valuable for bedside staff to read the information sheet to become familiar with how the trial can be explained.

FURTHER INFORMATION FOR STAFF

Speak to your local research team or look at the trial website: <https://www.icnarc.org/Our-Research/Studies/Current-Studies/T4P>

*** Specified procedures inc:**

- Central venous vascular catheter insertion (inc for renal replacement therapy)
- Paracentesis/superficial abdominal fluid collection drainage
- Pleural aspiration

OTHER PROCEDURES: any invasive procedure deemed *low bleeding risk* & a platelet transfusion is being considered for the procedure, e.g.:

- Arterial catheter insertion
- Arterial or central venous catheter removal
- Pleural drain
- Interventional radiology (as defined by Society of Interventional Radiology guidelines)
- Bronchoscopy with or without lavage
- Wound dressing changes
- Surgical procedures where the clinical team agree risk of bleeding is low, e.g. re-look laparotomy, or wound closure

