

甚麼是輸血？

輸血是按照醫生處方給病人輸入全血或血液成份（如紅血球、血小板、血漿），達致治療效果。

為甚麼醫生會建議輸血？

紅血球是輸送氧氣的主要工具，可舒緩貧血或失血的病徵。血小板可預防出血或幫助停止出血。當它的數量過低或功能不健全時，病者便需要接受血小板輸注。血漿是血液裏的液體部份，含有多種物質，包括幫助血液凝結的蛋白。輸血可補充失血，以及治療血球或凝血蛋白不足的併發症。主診醫生會按病人的需要，作出輸血的決定，病人應直接向主診醫生查詢有關輸血的問題。

甚麼措施保障血液安全可靠？

香港的血液供應媲美歐美先進國家水準，安全有一定的保證。香港紅十字會輸血服務中心祇接受無償捐血。中心要求捐血者先提供健康及疾病風險資料進行評估篩選。所有血液會在嚴謹程式下收集，並會按國際標準進行化驗，包括血型、乙型肝炎、丙型肝炎、愛滋病、T-淋巴細胞病毒和梅毒、及為血小板進行細菌培植測試。中心的處理血液程式要求嚴格，已取得國際ISO 9000 優質管理及澳大利亞醫療藥品管理局的優質生產標準證書。如你的醫生決定你需要接受輸血，醫院會抽取你的血液樣本，進行嚴謹的配血測試，尋找適合給你的血液。

輸血有甚麼風險？

通過上述措施，輸血是很安全。但與所有醫療程式一樣，它仍有一定的風險，詳情請徵詢你的主診醫生。

敏感

一般的敏感反應（如皮膚出紅疹，痕癢）通常是輕微的，可用藥物控制。嚴重的敏感反應十分罕見但無法預測，機會約十萬分之一，可以對性命構成威脅。

溶血反應

當病人的血液和捐贈者的紅血球血型不配合，便會產生排斥及引發溶血反應，造成捐贈者的紅血球受損而破裂。嚴重的溶血性反應非常罕見，機會在十萬分之一以下，但可引致腎功能衰竭和其他併發症，對性命構成威脅。負責配血的醫院血庫會仔細檢查血液，以確保只輸注配合的血液，避免溶血性的反應。

發熱

一部份病人在接受輸血時或輸血後的一段短暫時間內，可能出現寒顫或發熱，是否需要藥物來治理，要視乎個別情況而定，但一般都不會有嚴重後果。任何人士如曾經在輸血後有發熱反應，應告知醫生。

輸血相關性疾病

目前的血液檢查方法和測試科技，雖然十分先進，但仍非絕對安全。因輸血而感染傳染病的風險仍然存在。以本地捐血者的帶病毒率及傳染病之空窗期來計算，愛滋病毒存在於血液製品之殘餘風險*低於百萬分之一，丙型肝炎低於五百萬分之一，而乙型肝炎則低於一萬一千分之一。至於每次病人接受輸血感染上述傳染病之實際風險，則視乎許多因素，如病人身體免疫能力，是否已於輸血前感染，將要接受的輸血數量等，故此不可以一概而論。此外，因輸入細菌污染之紅血球而引致嚴重併發症的殘餘風險為五十萬分之一，而血小板則為一萬分之一。

其他

另外『輸血相關的急性肺損傷』在華人中則非常罕見。

不接受輸血會帶來甚麼不良後果？

簡單來說，輸血的目的是給病人補充身體所需之血液或血成份。紅血球攜帶氧氣到人體內主要器官，如腦部和心臟，一旦缺氧，這些器官便會受到損害，輸血可以避免這種危險。如果病人缺乏血小板或凝血蛋白而得不到補充，會增加出血機會，導致損害主要器官。

其他相關治療選擇

在某些情況下，除了輸血外，亦可考慮其他相關治療，例如：靜脈輸液或鐵質補充，但由於每項選擇都不是對每位病人合適，故需與主診醫生商討。閣下如需要更多資料，請與當值醫生聯絡。

備註

本單張只提供有關手術 / 程序的基本資料參考，可能發生的風險或併發症不能盡錄。個別病人的風險程度亦有不同。如有查詢，請聯絡你的醫生。播道醫院保留一切刪改此單張之權利。如對本頁資料有查詢或意見，歡迎向醫護人員提出，以便跟進改善。

參考資料

醫院管理局：《輸血簡介》(2021)

智友站：http://www.ckg.org.hk/pilic/public/BT_PILIC/BldTransfusion_0052_chi.pdf (05-07-2023)

What is blood transfusion?

Blood transfusion is the process of infusing whole blood or blood components (red blood cells, platelet, plasma) prescribed by your doctor into your veins in order to achieve a therapeutic effect.

Why would doctors give blood transfusions?

Red blood cells carry the oxygen in your blood to your vital organs. They can alleviate the symptoms of anaemia and bleeding. Platelets can prevent or stop bleeding by forming blood clots at the site of an injury. Platelet transfusion may be required for those who have a low number of platelets or whose platelets do not work efficiently. Plasma is a fluid that contains many substances including the clotting factors that help blood to clot.

Dependent upon the clinical conditions, blood transfusions are given to replace blood that has been lost or to correct serious or life threatening conditions due to low blood counts or deficiency of clotting factor(s). Your doctor will prescribe a blood transfusion according to your clinical condition. If you have any doubts or questions, you should ask your doctor in-charge.

What steps have been taken to make sure that the blood patients receive is safe?

Blood supply and safety in Hong Kong have been maintained at a standard similar to most developed countries in Europe and North America. The Blood Transfusion Service (BTS) only collects blood from volunteer non-remunerated donors. Before giving blood, donors are assessed by a health enquiry questionnaire and interviewed about their health and risk factors for diseases. Blood is collected under stringent procedure and then subjected to extensive testing in accordance with well established international standards.

The tests include those for blood group, hepatitis B and C, HIV, HTLV and syphilis and bacterial surveillance for platelet concentrates. In addition, the BTS has also implemented the ISO 9000 quality system and the Australian Therapeutic Goods Administration standards on Good Manufacturing Practice in order to further ensure blood quality and safety. Should your doctor decide that you need blood transfusion, a blood sample will be taken from you with clear identification for the hospital blood bank to cross match for blood that is compatible to your blood group.

What are the risks of receiving blood transfusion in Hong Kong?

Similar to other medical procedures or treatment, blood transfusion does carry risks, no matter how small. Below is a list of transfusion related risks for your reference only. Please contact your attending doctor if you feel a detailed discussion would be helpful.

Allergy

This is usually a mild reaction (e.g. skin rash and itching) and is easily controlled with drugs. Severe allergic reactions are very rare (less than one in a hundred thousands). It may, however, be life threatening in rare circumstances.

Haemolysis

If the donor and your blood groups are mismatched, the donor red cells will be destroyed by your body after infusing into your body. This reaction is called haemolysis. Severe haemolytic reaction is exceptionally rare, at an incidence of less than one in a hundred thousand. However, it can result in kidney failure and other serious complications that may be life-threatening if this occurs. The hospital blood bank will ensure that the correct blood is given to prevent this type of reaction by meticulous testing.

Fever

Some patients may feel chills and feverish during or shortly after blood transfusion. Whether treatment is required will depend on his/her clinical condition. It will often subside without any consequence. However, if you have a history of febrile reaction with transfusions in the past, you should report this to your doctor.

Transfusion Transmitted Infections

At present, the risk of transfusion-transmitted infection cannot be eliminated entirely by the testing technology that is currently available. Based on the observed sero-prevalence of the local blood donor pool and the window period of the infection, it is estimated that locally the residual risk* of HIV in a blood product is less than one in a million, hepatitis C is less than one in five million and hepatitis B is less than one in eleven thousand. It is not feasible to generalise the exact risk of every infection for any patient receiving blood transfusion as there are many variable factors that would affect the risk estimation, such as the immune / infection status of the patient, the quantity of blood transfused etc. The residual risk of bacterial contamination in a red blood cell product that may cause serious transfusion-associated complications is estimated to be one in five hundred thousand, and one in ten thousand in a platelet concentrate product.

Other

Transfusion related acute lung injury (TRALI) is rarely seen in Chinese.

What are the risks of not having a transfusion?

In simple terms, the purpose of giving blood transfusion to you is to replenish the blood or blood component(s) you need. Red blood cells carry the oxygen in your blood to your vital organs, such as the brain or heart. A decrease in oxygen can result in damage to these organs. Transfusion may be needed to prevent such damage. If you have a low platelet count or a deficiency in clotting factor, you are at a higher chance of bleeding. In some cases, this can result in serious major organ damage.

If you need further information, please contact your doctor in charge.

Are there any other treatment options?

In some situations there may be other choices to a blood transfusion and these include – fluid replacement with saline or other artificial compounds and / or iron supplements.

Remarks

This is general information only and the list of complications is not exhaustive. Other unforeseen complications may occasionally occur. In special patient groups, the actual risk may be different. For further information please contact your doctor. Evangel Hospital reserves the right to amend this leaflet without prior notice. We welcome suggestions or enquiries on the information provided in this leaflet. Please contact our Healthcare professionals so that we could follow up and make improvement.

Reference

Hospital Authority: "General Information on Blood Transfusion" (2021)

Smart Patient: http://www.ekg.org.hk/pilic/public/BT_PILIC/BldTransfusion_0052_eng.pdf (05-07-2023)