評讀文獻

2011 Guideline for the administraction of blood products Australian New Zealand

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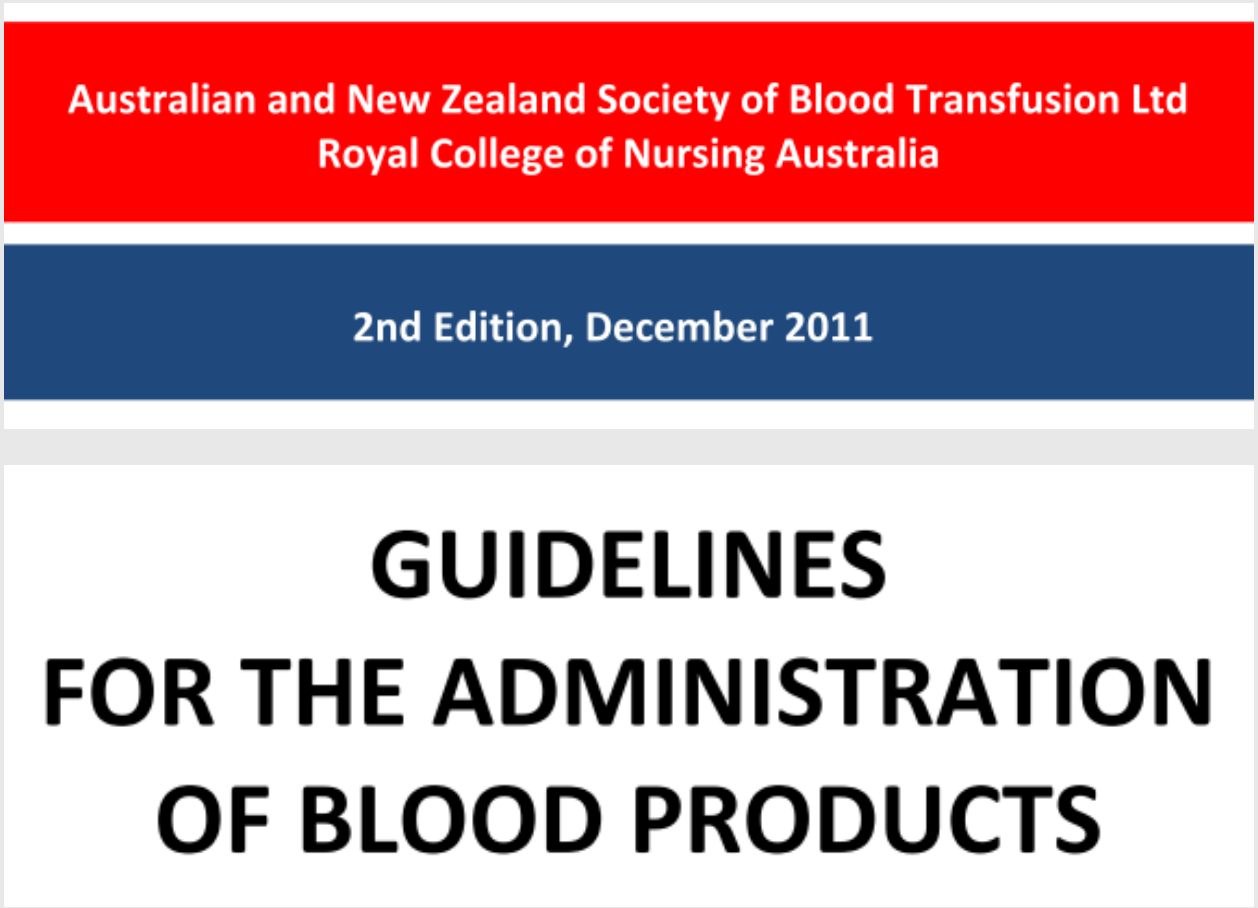
步　　驟	注 意 事 項
3.3.5 開始輸血 10~15 分鐘前流速不超過 20 滴/分。 3.3.6 **輸血 15 分鐘後，輸血速度維持在 40~60 滴/分之間（並測量生命徵象及觀察有無輸血反應）。(兒科依醫囑)** 3.3.7 在室溫下的血，最好在 **2 小時內輸完，最慢必須在 4 小時**內輸完。 3.3.8輸血完畢以0.9%生理食鹽水將管路沖淨，直到輸血管路乾淨。 4.護理評值照護 4.1 **輸血後，測量生命徵象**。 4.2 護理記錄正確(含病人反應(如:寒顫、紅疹...等)、特殊事項、記錄輸血情況)。 4.3 輸血反應單紀錄完整送回血庫，記錄生命徵象和有無輸血反應。	■ 若有呈現加溫緩輸，請依規定處理。 ■ 不可用 5%G/W 或 Ringer 溶液可能造成溶血或血液凝固現象。如病人曾有輸血過敏病史，輸血時應在血袋與血袋之間，先以 0.9 %生理食鹽水滴注。 ■ 嬰幼病人之輸血： ※ 大量[illegible]不可超過 300ml ■ 心[illegible]器 ■ 病[illegible]溫器使用[illegible]加溫器或將血袋置於[illegible] ■ FFP 解凍後在 2 小時內輸畢。如需繼續輸液，則更換一般輸液 Set 維持輸液通暢。 ■ Granulocyte 需馬上輸注，不宜放置超過 12 小時，宜 2~6 小時內輸完。 ■ Platelet 6u(250~300c.c.)約 2 小時輸完，使用前應輕微搖晃。 ■ 記錄每袋血品名稱、輸血開始時間、血型、血袋號碼、結束輸血時間。

緣起:
JCI 評鑑，本院輸血療法標準規範，未明確規範 生命徵象之監測頻率

本次評讀文獻 Journal Club

病人輸血期間，如何適當監測生命徵象 (頻率)?



AGREE II
臨床診療指引評讀工具

1. 有特別描述指引的整體目的(P. 10)

The aim of the Guidelines for the Administration of Blood Products is to provide guidance on the appropriate storage and collection of blood products as well as the safe administration and management of transfused patients.

This document should be utilised as a tool to create policy rather than a clinical procedural document.

To aid this process additional links to relevant tools and guidelines have been incorporated into the body of the document.

These guidelines must also be considered in conjunction with the ANZSBT Guidelines for Pretransfusion Laboratory Practice and the NPAAC Requirements for Transfusion Laboratory Practice.

完全不同意						完全同意
1	2	3	4	5	6	7

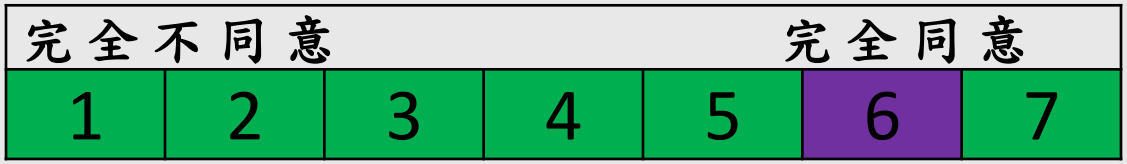
2. 有特別描述指引所涵蓋的健康問題(P. 10)

- The areas covered by this document are:

1. The decision to transfuse.
2. Consent for blood products.
3. Prescription of blood products.
4. Requests for blood products and pretransfusion blood sampling
5. Storage, collection and transport of blood products.
6. Administration of blood products.
7. Special transfusion circumstances.
8. Management of transfusion reactions and other transfusion-related adverse events.
9. Clinical governance.

4. 指引發展團隊成員包含所有相關專業團體(P. 3)

Guidelines were developed by the ANZSBT Clinical Practice Improvement Committee (CPIC), the Australian Specialist Practitioners of Transfusion (AUS SPOT), Royal College of Nursing Australia (RCNA) and supersede the previous Guidelines for the Administration of Blood Components 1st edition



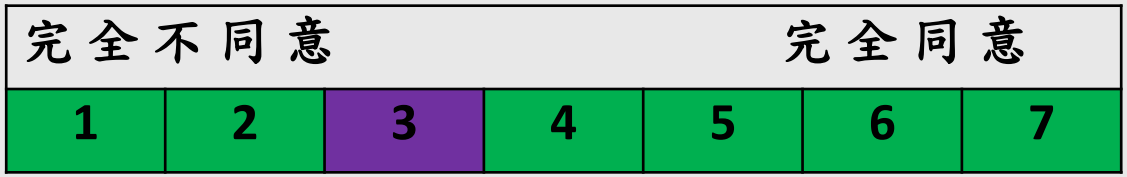
11. 形成建議時，有考慮到健康效益、副作用及風險

Section 8 (P43) Management Of Transfusion Reactions And Other Transfusion-Related Adverse Events
1. Acute and delayed haemolytic transfusion reactions.
1. Febrile (non-haemolytic) transfusion reactions.
3. Allergy and anaphylaxis (including IgA/anti-IgA reactions).
4. Transfusion-related acute lung injury (TRALI).（TRALI）。
5. Transfusion-associated circulatory overload (TACO).
6. Post-transfusion purpura (PTP).
7. Transfusion-associated graft vs. host disease (TA-GvHD).
8. **Transfusion-transmitted infection** (TTI) including sepsis from bacterially contaminated blood components.

完全不同意						完全同意
1	2	3	4	5	6	7

12. 指引建議與其支持證據間有明確的關聯

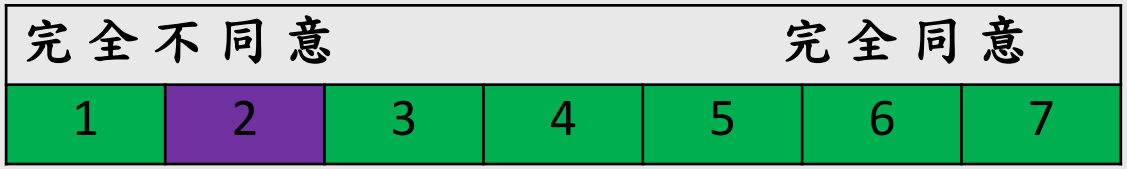
- 每個章節有 additional resource
- 但是未與 recommendations 有連結



14. 提供指引更新的程序(P9)

Comments on these guidelines and suggestions for revision for inclusion in the next update are welcomed and can be forwarded to: ……

未提多久更新，但有給聯絡窗口



15. 建議明確不含混

- Observations and monitoring (p .36)

The patient **MUST be** closely observed for the **first 15 minutes** after commencement of each unit and SHOULD be closely observed from the start of each individual blood component pack throughout the transfusion, to detect any adverse effects.
As a minimum, the vital signs of temperature, pulse, respiration rate and blood pressure MUST be measured and recorded as follows
Prior to the **start** of each individual blood component pack administered.
15 minutes after commencing administration of each blood component pack.
When administration of each blood component pack is completed
There is no consensus on subsequent frequency of routine vital sign measurement during transfusion, however many institutions stipulate **hourly** measurements, after the initial 15 minute period, until **completion** of the transfusion.
More frequent monitoring may be required based on underlying comorbidities and intercurrent factors,

16. 清楚呈現處理狀況或健康議題的不同選項

6.11.1 Children, unconscious or anaesthetised patients (p 37)

Routine observation patterns must be applied, however closer observation should take place for infants, unaccompanied children and patients who are unable to verbalise symptoms or use the call bell due to mental or physical limitations.
Unconscious or anaesthetised patients require increased monitoring and vigilance for signs of transfusion reactions.
Transfusion reactions should be considered if a change or deterioration in the patient's condition occurs.
Hypotension, uncontrolled bleeding or generalised oozing during surgical procedures may suggest an acute haemolytic reaction due to an incompatible red cell transfusion.
Haemoglobinuria or oliguria may also be an early sign of an acute haemolytic transfusion reaction due to an incompatible red cell transfusion.

17. 主要建議清楚易辨(P11-13)

9 Section 及20 項建議內容

Section 1: Decision To Transfuse
Section 2: Consent For Blood Products
Section 3: Prescription Of Blood Products
Section 4: Requests For Blood Products And Pretransfusion Blood Sampling
Section 5: Storage Collection And Transport Of Blood Products
Section 6: Administration Of Blood Products
Section 7: Special Transfusion Circumstances
Section 8: Management And Reporting Of Adverse Events
Section 9: Clinical Governance

19. 指引有提供如何實踐建議的說明和(或)配套工具

- 6.2 Equipment - 6.13 Checklist for medical/clinical record (P26-P38)

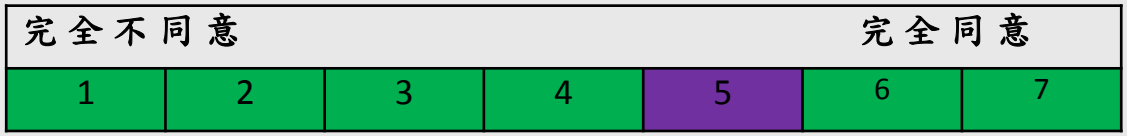
6.2 Equipment
6.3 Additional filters
6.4 Infusion devices
6.5 Blood warmers
6.6 Concurrent fluids and medications
6.7 Location and timing of the transfusion
6.8 Checklist before a blood product is issued by / collected from the transfusion service provider / remote refrigerator
6.9 The pre-administration identity check of patient and blood product
6.10 Infusion rates and precautions 輸注速率及注意事項
6.11 Observations and monitoring
6.12 Completing the transfusion: **must be recorded**.
6.13 Checklist for medical/clinical record documentation of transfusion

完 全 不 同 意					完全同意	
1	2	3	4	5	6	7

21. 指引呈現監測和(/或)評估的標準

- 6.10 Infusion rates and precautions (P.35) 輸注速率及注意事項**(例如)**

Red cells	60-180 minutes per unit.
Platelets	15-30 minutes (Australia) / 30-60 minutes (New Zealand) per standard adult equivalent dose.
Fresh frozen plasma	30 minutes per unit (i.e. 10-20mL/kg/hr).
Cryoprecipitate	30-60 minutes per standard adult dose (i.e. 10- 20mL/kg/hr).
Granulocytes	Infusion rates should follow local protocols.
Plasma-derived products	Infused in a timeframe in accordance with product-specific instructions.



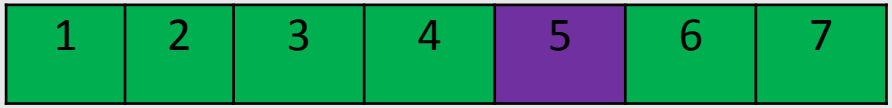
AGREE II臨床診療指引評讀工具（有12項未提及）

3.清楚定義適用的族群(病人, 公眾等)
5.已納入目標族群(病人、公眾等)看法和偏好
6.清楚界定指引使用者
7.運用系統性的方法搜尋證據
8.清楚描述選擇證據的標準
9.清楚描述整體證據的強項及限制
10.清楚描述形成建議的方法
13.指引公告前已經由其他外部專家審閱
18.指引有描述在應用時會遇到助力或障礙
20.有考慮到應用建議時對資源的潛在影響
22.贊助者的見解沒有影響到指引的內容
23. 記錄和陳述指引發展團隊成員的利益競爭

完全不同意						完全同意
1	2	3	4	5	6	7

整體品質評分/
Rate the overall quality of this guideline

最低可能的品質



最高可能的品質

我是否建議採用本指引 /
I would recommend this guideline for use?

建議 (Yes)	
建議(有但書或需修改) / Yes, with modifications	○
不建議 (No)	
說明：	

Other reference: transfusion guidelines

1. 2011Guidelines for the administration of blood products Australian and New Zealand
2. The clinical use of blood WHO
3. 2010 National Blood Transfusion Policy Pathology CSN
4. 2013 5th Handbook of Transfusion Medicine UK
5. 2013 Right blood，right patient，right time RCN London
6. 2014Recognising and managing transfusion reactions
7. 2009 The rules of transfusion: Best practices for blood product administration

Monitoring the patient during transfusion

Stages \ Guidelines	本院	2011 (1)	WHO (2)	2010 (3)	2013 (4)	2013 (5)	2014 (6)	2009 (7)
Before starting the transfusion	○	○	○	○	○	○	○	Before
15 minutes after starting transfusion	○	○	○	○	○	○	○	during
30 minutes after And every 30 minutes	Nil	Nil	Nil	○	Nil	Nil	Nil	
At least every hour during transfusion	Nil	○	○	Nil	○	○	Nil	
On completion of the transfusion	○	○	○	○	Nil	○	○	after
4 hours after completing the transfusion	Nil	Nil	○	Nil	Nil	Nil	Nil	

病人輸血期間監測頻率?

輸血開始後15分鐘測量第一次，輸血期間每60分鐘再測量一次

- 同意 26
- 不同意 0
- 尚無法決定 6


Thank you For
your Listening