

TRANFUSION OF PACKED RED CELL IN PRETERM BABIES : TRANSCRIPT

SLIDE 1

Dear All,

We will now discuss about a very important topic “Transfusion of packed red cells in preterm babies”.

SLIDE 2

Here we will learn as to ...

- (1) Why should one follow a standard guideline to transfuse a baby rather than take decisions subjectively?
 - (2) Following this we will also discuss in detail and understand the guidelines to be followed for transfusing the packed red cell or PRBC in the preterm babies
 - (3) And finally we will also learn how is the PRBC transfusion given with some important points
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SLIDE 3

We all at some time or the other transfused preterm babies with packed red cells.The decision to transfuse is generally taken on clinical assessment or interpretation of haemoglobin levels of the baby. These, assessments may differ from person to person..... resulting in wide variation in transfusion practices.

Hence, if the guidelines are not used, One may tend to give transfusion when it is not required

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These unrequired transfusions may put the preterm baby at undue risk of complications and these preterm babies are at higher risk for all complications compared to term babies

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Hence ,it is very important to always use standard guidelines for transfusing packed red cell in preterm babies

SLIDE 4

So, now let us see ; what guideline one can follow; ?

The table in the slide describes the guidelines for transfusing the PRBC in preterm babies. The values in table depict the Hb levels in gm%

Let us understand how one can follow these guidelines,

To appropriately follow the guidelines, one needs to determine 3 factors in a baby namely

- (1) Age of the baby and (2) Gestation of the baby and (3) Requirement of O₂ or CPAP by the baby...

For preterm babies who are more than 32 weeks of gestation, one has to follow the Haemoglobin level cut-offs in the blue column that is on the left side ,

E.g,

If the baby is more than 32 weeks and is 16 days old, he would receive transfusion if his haemoglobin level is less than 7.5gm %

Similarly, if a baby is 3 days old, his cu-off for transfusion would be a haemoglobin of less than 10

For preterm babies less than 32 weeks of gestation, it is also important to determine if they are requiring the oxygen or the CPAP....

One can refer the left-hand side of the table to determine the transfusion cut-offs

E.g' if the baby is 12 hrs old and his haemoglobin is 11gm%, he will receive transfusion only if he is receiving oxygen or supported by CPAP, otherwise he will not receive transfusion.

You can, see that when the baby is on oxygen or CPAP, he is sick and hence these babies have a higher cut-off compared to babies who are not on any kind of respiratory support
Hence, before taking a decision on transfusion in these at risk babies one should always refer the chart, the same has also been provided as an annexure for reference

SLIDE 5

Now once we have decided that PRBC should be transfused based on the guidelines, some of the important considerations for PRBC transfusion are

1. The volume of the transfusion should be 15ml/kg , and this should be given over 2 to 4 hrs preferably by the infusion pump . And this should always be crosshatched
 2. Strict asepsis should be maintained while initiating and giving the transfusion
 3. The baby may continue accepting feeds during transfusion, unless the baby is haemodynamically unstable
 4. It is generally advisable to stop the IV maintenance fluid , while administering the PRBC transfusion , unless the baby is being treated for the hypoglycaemia with IV fluids . In such a baby a separate line for the PRBC transfusion should be established
 5. The furosemide should not be routinely used during transfusion
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Thank you