MELB - Carole Smith

Slav

I will now pass onto Carole to talk about a more interesting part of this talk which is transfusion reaction documentation, monitoring and reporting.

Carole

Thank you. I'd like to acknowledge Slav for all the work that she's done. Without a transfusion nurse we just wouldn't really get across the line for accreditation and I would like to acknowledge that they're such a vital part of the hospital and really, really important for blood patient safety but also to get across the line for accreditation, as I've said.

I'm from the medical tribe and probably after anaesthetists and surgeons we're probably the worst in the hospital for documentation, hence Slav didn't entrust me to do the first half of the talk, I've just got the second half of the talk. But my redeeming feature is that I'm O negative which is the most perfect blood group.

I'd also like to acknowledge the other members of my blood transfusion committee which are really hard working, some of them are in the audience. I will have to say though that Peter McCall, even though he is a very valuable member of our transfusion committee has given us 20 extra patients a week to see and it's not very much work, we can handle it but I'd also like to acknowledge that with Larry, that my husband is a surgeon and now I understand why he'll never learn to pick up his dirty socks at night but I will be taking up the matter of iron deficiency being a surgical issue tonight when I go home because I'm hoping that I can organise that that 20 patient extra that we're seeing each week will be seen by the surgeons and it will be okay. But let's move on to the real talk.

The three things that I'm talking about relate to transfusion reactions and it's about documentation, it's about trying to reduce the risk of transfusion reactions and that's really a nebulous topic and it covers everything throughout the whole process but I guess we're going to show today what we put in this section rather than saying that everything in the standards should be shoved into 7.6.2. We'll also talk about how we do our reporting internally and we'll also be talking about how we report internally and externally.

Many of you are already doing some of these things so I might be teaching you to suck eggs but I'll at least try and talk about the things that we do and it may have relevance for people who are only just starting working out this accreditation process.

With each of these standards they have some reflective questions and it's said that if you're able to answer these reflective questions you should be able to pass accreditation but some of the reflective questions I'm not that keen on and the first one is how do we know clinicians ask about adverse reactions to blood and blood products and I'll talk about that a bit later and how do we record adverse reactions to blood or blood products, so I'll be talking about the way we do it at our hospital which we've thought about a lot and it may be that some of you are doing it better but I think it's important that we share these sort of things because

at the end of the day it's really about getting the information back to the clinicians and making sure that the patient's care is better.

Slav's already shown you this request form. We do ask clinicians, particularly if it's an extended cross match, that they fill out the transfusion history, whether it's been recent and whether there has been a transfusion reaction. This probably is of little relevance and this might be controversial but certainly within our hospital we will have all those records but we have found that if a person has had a transfusion elsewhere that the information that we get from this question and whether they had a reaction is really very vague and unreliable and it really doesn't influence how we will process that pre-transfusion sample unless it's an extended expiry. So I'm going to question whether that question about whether doctors are asking about transfusions is that important. It sounds like it should be really important but in practice it doesn't really influence very much what we do. We will release blood in our laboratory if the antibody screen is negative whether they've had a transfusion reaction or not because half the time that transfusion reaction may not have been related to the transfusion it might have been a coincidental febrile reaction and so that area I think is really a bit woolly but this is my opinion and I'm happy to discuss it. I think however that might be one of the reflective questions that might need to be revised when the standards are being evaluated and morphed in the future but that's my opinion.

But how do we actually go about trying to reduce the risk of adverse events? We've all been doing this for a very long time but for the purpose of accreditation I think many people are preparing a risk register as one of the prongs of how we're going to answer this question. I've got three areas of how we are approaching this standard and you can also see that when we're in our blood transfusion committee that we address this risk register and we have an action plan about how we might address some of the risks and I've got an example here and I don't want you to get too excited about whether you think the risks are allocated as being too high or too low but this is just an example of a portion of our risk register that we prepared and we're really developing for accreditation further.

Looking at particular aspects of what the, in the left column we state what the issue is, we state what the risk is and then we have a look at whether it's an inherent risk and then by looking at our incident data we decide what the actual risk in the organisation is and then we document what the action plan is. This allows you to keep looking at this sort of information and deciding whether you've actually been keeping up with your action plan and whether you have been able to reduce your risks. It also filters up to the higher levels of governance for them to be aware of what the risks to the organisation are.

I apologise for this busy slide but this is just the second prong where we give some specific examples about how we're actually trying to reduce the risk of adverse events. We all start with policies and certainly we have a policy that describes how you should safely prescribe a blood transfusion and it includes important things like how you decide on the rate, whether you give diuretics and things that are of clinical importance to improve the safety of transfusions.

We also have an education program as well as policies and guidelines about how you manage transfusion reactions and I think Slav's already described the fact that we do clinical skills labs with the interns and we've been doing that for a

number of years now so we think as the doctors get a bit older that they'll retain that information but I know I'm a bit of a sadist but we quite enjoy the bit where they suddenly realise and get sweaty that they are actually dealing with a mock transfusion reaction and they really lean what checking the paperwork means and finding that they're actually infusing an ABO incompatible transfusion as we pretend that we're sinking deeper into the reaction and we do get some macabre joy out of realising that they get it and that they will know what to do should the situation arise, they will quickly try and evaluate the paperwork, work out if it is an ABO transfusion reaction and they know that they have to get some immediate assistance while they're getting the ABC's done. So we think that that's been a really valuable tool and we know that hopefully that many of the doctors in our hospital will know what to do if they are faced with a transfusion reaction.

We also involve the patient in this empowerment and being able to feel confident to tell nurses that they may be developing symptoms during their transfusion to assist with early diagnosis and it's very important that we know about any pre-existing signs so we know whether things are changing or not. And I think also in addition to the interns we have many formal education programs.

We also like many other hospitals, try to limit transfusions to the time when staffing is maximal on the wards to reduce the chances of incidents happening unnoticed. We're not the only institution who does that and I will be talking a bit more about that transfusion reaction review.

So why do we monitor people, is it really just getting the charts lined up, is it all about auditing? I really hate, as has been mentioned twice today, this idea of auditing and not doing anything about it. The point of monitoring is that it does allow you to detect a transfusion reaction as soon as it's happening and if you haven't been around to see the patient and check on them for an hour things could get pretty nasty during that time and certainly although I'm talking about my last point, from the STIR data the average time for an acute onset to be recognised was only an hour and nine minutes from the commencement of transfusion and some of the data, both state-wide and from us does suggest that we might be good at doing the obs beforehand, hopefully, often the first 15 minutes is not too bad but there's often a gap until the end of the transfusion and that's where we might lose precious time in not only managing the transfusion reaction but also stopping the antigen load that is being delivered to the patient by turning off the transfusion and limiting the degree of deterioration that the patient might experience.

Now certainly Slav's been talking about our BAT tool. What we're hoping with this is that it really feeds back to the coal face what's really going on so that we can get that continuous improvement. Since we have had a transfusion nurse we have been auditing and feeding back to Nurse Unit Managers, talking at forums and there has been slow improvement but we're hoping with this BAT tool that there will be much more ownership at the clinical level and that we'll really see quite a lot more practice improvement on a continual basis because of the frequency of it and the fact that it's being audited by the people on the ward rather than an external person coming in and although it has its limitations because it's only a small snapshot of people, we think that instant feedback and ownership will make a big difference.

I'm moving onto transfusion reaction reporting. We have a refuse system that

we've refined over time but it starts off with the form that Slav showed you that we call the M109 that on the back of it, it has a transfusion report that gets sent with the blood samples to the lab and it looks like this and I'm not sure how well you'll be able to see it and I can't get the pointer going but you will see up the top that it gathers some clinical information that helps a bit of thinking and helps us also evaluate what might be going on. They're simple things like pulse respiratory rate and blood pressure but it also although it's probably getting a bit late by the time you get up to this paperwork, it reminds people to check the paperwork and see that the correct unit was given. And although it may not help with this person it might mean the next time around when they fill out a form they remember that they're meant to have done that. It starts to try to put the symptoms and signs into some order, at least to do with severity if not trying to categorise the reaction in the middle section; and we also have information about the clinical outcome and we also have supporting information down the bottom that helps them determine what sort of blood test they need. But we do also as I've mentioned, that the clinical skills lab remind them that they actually have to resuscitate the patient.

I'll also say that when we first started I think transfusion reactions have been investigated for a very long time in the lab where we send samples back but when we initially reported it we were thinking with a laboratory perspective, was an antibody detected, was there some outcome that the lab was able to show that we now have a positive Coombs test, that sort of aspect. But we're now starting to look at it from the point of view of the clinician and what do they need to know to allow them to continue the care of the patient, is it going to be safe to give some more blood, was an antibody found, was it really a transfusion reaction and what sort of transfusion reaction was it, was it a febrile non-haemolytic transfusion reaction which means that you may or may not give a pre med next time or was it something more significant that you have to do quite a bit of liaison with the Blood Bank with.

So we started looking and refining our report to help the clinicians understand what happened and also we document the severity of the transfusion reaction and you'll see on this next slide which unfortunately we give a lot of transfusions to pesto test but you can also see that we had a bit of trouble spelling haematology down the bottom but the form tells us things about like under general comment "the reaction in this patient is mostly likely due to an underlying septic condition" so that when you're looking back you can determine that this wasn't related to the blood transfusion or conversely that it was; and this is hopefully quite useful clinical information. And you can see that the recommendations for future transfusions is a heading or prompt for us to fill in and we've said in this case that the patient should be closely monitored but if reactions continue that it might be worth liaising with the lab.

We also outline this procedure in an overarching guideline telling clinicians how they might recognise and manage transfusions; and as we've mentioned we have also rolled this out at clinical skills days. I have borrowed this from St Vincent's in Melbourne, this colourful chart. A version of this is included in our Austin Hospital Transfusion Reaction Guidelines but I'm afraid to say we've got it in our corporate colours of drab green and I did like the very colourful St Vincent's version. They've developed this tool and they've shared it in the Blood Matters group so that people are able to use it and it helps clinicians try to work out whether this is an allergic reaction, whether this could be a febrile non-haemolytic reaction

based on the clinical features and helps not only guide the management of the patient but it also helps with deciding what investigations have to be done and it also helps work out what the transfusion reaction is when we are reporting.

We also generate a RiskMan report. Although the ideal in a hospital is that all risk men or women reports happen whenever there is a transfusion reaction, we did find that they weren't always being generated but that we knew that a transfusion reaction had happened because we did get samples sent to the lab and so what we've been doing is liaising with the clinical units so that a RiskMan is always generated and we also fill in our components so that there are two records not only in the laboratory report that you've just seen which is available in all the pathology results and can be easily accessed in the future, you don't have to rifle through all the clinical notes to find it but it's also in this RiskMan report.

All serious transfusion reactions of ISR1 and 2 automatically get reported up the line as they probably do in most institutions to the Safety Quality Risk Committee and also the Board Safety Quality Risk Committee.

This is just an example of what the RiskMan looks like. I know it's very hard for you to read but I think that what the nurse has written and what the registrar has written is really quite nice in this case. This is a case of a transfusion reaction to intravenous immunoglobulin and the nurse has said that the patient has responded to anti histamines, that they did have a rash, an itchiness, that they got better, they've reported it to the haematology registrar and that there were no clinical consequences for the patient and the summary from the registrar down the very bottom and even I'm having trouble reading it, is this reaction has been reviewed and a full report has been issued in the pathology information system and it quotes the number, where it can be found and the date. The event is possibly related to intravenous immunoglobulin, there are no long-term consequences, advice on pre-medication for future IVIg infusions has been included in the report mentioned above. And it maybe that some may not be as comprehensive as this and you could argue about whether this advice is correct and whether perhaps a different intravenous immunoglobulin preparation should be tried but at least there's documentation, there's thought about it and there's also involvement of the clinical unit. We have the registrar always ring up and talk to the clinical unit. So we've got this continuous feedback about the importance of transfusion reactions and how you manage them and we're also finding that increasingly we're getting more reports and more involvement and discussion about them.

The final part of the talk is reporting to the highest level of governance and I think most institutions have this happening in an automatic manner and they probably won't need to think about this anymore for this type of accreditation because they've already got this in place but we have a transfusion committee, our minutes are supplied to the Safety Quality and Risk Committee, we do perform formal presentations to both that committee and the board safety quality and risk and any ISR1s and 2s do have route cause analyses performed so that we can look for any system issues.

We report, being Victorian based, to the STIR reporting system which the majority of people who contribute are from Victoria. For those who are out of the state and don't contribute to this particular one, it's a central reporting system where serious adverse events are reported. We also report near miss events as

well as wrong blood in tubes. We also report to the Red Cross if there has been a significant adverse event that may have a traceability and recall implication such as a TRALI and we also report to the manufacturer if it's a specific manufacturer, products such as immunoglobulin and I think that I've just got some features of the STIR process just for those who are not familiar with it.

There is an initial form. This may go in without blood transfusion committee review but generally by the second layer form we've tried to look at the issue at the blood transfusion committee and as you may know for those people who do report to STIR, we already try to classify the transfusion reaction, be it a TRALI or incorrect blood transfusion component at the time of the initial submission. STIR feeds back to us by way of biannual report which is distributed to the Chief Executive Officers.

I'm just going to reiterate some of the things that Slav and I have spoken about.

We think that there are a number of things that we do well or have got a new approach to with criteria 2. We believe that we have a process that facilitates the entire history of transfusion. We also have a discharge summary that communicates with the local doctor that there may be a transfusion reaction that's delayed, possible. They can contact us if they feel that there is an issue, having known that there has been a transfusion. We have a system for reporting and review of transfusion reactions which we think is encouraging the majority of transfusion reactions to be reported. We have a new auditing framework, the BAT tool, which we think really takes the responsibility for improvement back to the ward level. We also have good rates of documentation in the notes even though this is a challenging area which I think nobody has got a fantastic answer to but we do know that we've had electronic solutions in other areas of the hospital that you have to be really careful of if you think that they're going to be your answer to having mandatory things that you can show for accreditation. We've found that unless it's a drop down box it does not work because the majority of our requests in our lab for mandatory things are a full stop and that I don't think that would go very well for accreditation that you say that the indication for transfusion was 99% full stops and so we're still relying on clinical notes and I really think that that's always a challenge.

We've also found with the BAT tool that sometimes people interpret the questions a little bit differently so you have to be really careful how you word the questions. And although they should be black and white sometimes people do evaluate things a little bit differently and although probably numbers were the issue with our results with the BAT tool, we think that sometimes people aren't looking in all the areas of documentation and noticing where things are and that if you've got an experienced auditor they often have improve rates of compliance.

It's always a challenge to get continuous improvement and we're always encouraging all transfusion reactions to be reported however the lab isn't enjoying all the work that they're doing investigating all of this and we do believe that Blood Matters will be auditing transfusion reactions surveying hospitals in the near future. And I think Slav and I will be happy to take any questions.

Questions?

I was just wondering about your blood transfusion form that you have. Is that

used in ICU and ED and in theatre as well for prescription and administration?

Slav

Yes, it's used in all clinical and critical care areas. It however is not used intraoperatively, it is pre and post from recovery onwards but not intraoperatively.

We underwent a mock survey at the beginning of this year and under best possible history we received a recommendation because we didn't have the history of the products documented outside of our hospital, we had everything that we had administered at Peter Mac but the recommendations said that we didn't get the history of blood products administered when the patient was 10 years old or something like that.

Slav

I think Carole would love to answer that one.

Carole

Well we've been grappling this too because we similarly got a recommendation and that was kind of why I was saying that it's really not relevant, why are they making us do this, it's not going to change our management, it's not going to improve our safety. We actually look back over five years and we found that probably a ratio of 1:30,000 that we found a low incident antigen in someone that we couldn't detect from the group and screen and we found that that person didn't have a transfusion reaction history so knowing that history wouldn't have made any difference. So at the moment we're still debating this but we had thought that we would write a risk assessment using that data saying that we've looked at this issue and it's not a risk; and we've been told that that will be sufficient, as long as you've done a risk assessment and shown that the risk is negligible or very, very low that you will be able to pass that standard.

Now the alternative is that we do try to make sure that everybody ticks all those boxes knowing that it's a waste of time and a huge amount of resources to make people do something that's really irrelevant just to past accreditation but as we get closer to accreditation I'm getting more and more nervous and thinking maybe we'll do that.

It wasn't even about the reactions, it was about the history. If the patient didn't have a reaction that's okay but we needed to know all the products.

Carole

Yes and the thing is that those sort of things don't help you and we don't have a state-wide system …

We're going to argue exactly the same things.

Carole

Exactly and even in other states who have better systems, it's really about collecting data about antibody detection which is not what that's about; and so I don't think anybody's got that and the standards are being sometimes evaluated

by clinicians who are not in this area who do not know that that's not available anywhere. But we do know that people have passed and they're in the same situation as us.

I noticed Michael's taken a note to take back to the Commission.

Carole

Sorry, don't tell the people coming to see us. But is there anyone from the Alfred because we know that they've passed and they have an excellent response to this?

The 2012 UK SHOT report says that in order to reduce harm and manage risk that in the UK at least and probably here in Australia with a much smaller population we should have a laboratory information system that can record the patient's transfusion history from birth to death and that would help us as transfusion laboratory scientists because there are patients out there who are nightmares, untransfusable and they can rock up on my doorstep anytime and nobody will know necessarily all the history.

Carole

True but we also have telephones. I'm sorry to be flippant …

But you don't know who to call.

Carole

Exactly but they might be able to find out where they've been before and we do phone a lot and also we can't wait to be like Scandinavia or Holland and all have the one computer system, it's not going to happen. If anybody else has got any ideas of how we're going to do this please let me know.

Well the problem is that the laboratory might be in woop woop west and closes at 5 o'clock on a Friday night and it's Saturday night at 7 o'clock and you've got no hope of knowing exactly where to phone and then you're wasting precious time to try and find out and that's difficult.

Carole

True but statistically we can show that doesn't happen that often.

I'm going to have to bring it to a close and so maybe the debate can rage on outside. I'd like to present both Slav and Carole just a small token of appreciation from everyone here.