

## **SYD - Peter O'Halloran**

**We've now moved onto criteria 2 for the afternoon and criteria 2 is all about in essence, inventory management and reducing wastage and we have three speakers for this criteria and the first speaker to provide a little bit of a higher level is Mr Peter O'Halloran. And those people who have implemented BloodNet will probably know Peter. Peter actually works at the National Blood Authority, he's also the executive director, he's our chief information officer and the executive director for health provider engagement so Peter's at the moment carving out a career and travelling around the country and visiting hospitals. He has an extensive management experience across the university and government sectors. He joined the Authority from the National Health and Medical Research Council in January 2008 as the Director of Corporate Services Secretariat and was appointed as its inaugural chief information officer in 2009.**

**Currently he's responsible for health provider engagement, ICT systems and services, during his tenure with the authority, Peter has been responsible for a range of functions, including ICT, data analysis, governance and corporate services and has been involved in a range of high profile projects, including the National Blood Supply Contingency Plan, BloodNet and the Australian Bleeding Disorders Registry. Prior to the Australian Public Service he held a diverse range of positions in the university sector with responsibilities including student services, student accommodation, student administration governance, public relations and student recruitment. I would say in around the National Blood Authority he is known as Mr BloodNet so if you've got problems with BloodNet, he's the man to talk to. Peter.**

Good afternoon everyone. So apparently I'm now Mr BloodNet so I think it's time to change my name or change the name of the system. This afternoon I'm just going to provide a quick overview of what's happening at a national level for blood and blood product wastage reduction before Kim Stewart talks a bit more in detail about jurisdictional level and then we have a great set of presentations to talk about what's actually happening at a hospital level after that. So without further ado, why we're here and why does wastage reduction matter? Apart from the obvious things that we're talking about, actually trying to conserve a valuable resource, conserve the gift from donors, try and save funds, it also very much ties into Standard 7, looking at 7.8, minimising unnecessary wastage.

So all the work we talk about here in this area ties directly back to Standard 7 as well. So it's not only a good thing to do it also helps you tick the accreditation boxes as well. So a quick summary of where we actually stand, we'll get some of the facts and figures. Over the last two or three years there's been a fairly big emphasis from governments actually collecting more data and wastage so we've actually seen the amount of data collected on wastage go from about half of what we have now, so at this point in time about 95% of issues from Blood Service nationally go to facilities that actually record discord data in the national systems, that's up from less than 50% two years ago. So what we're seeing is with the increased focus, people are restarting to think about wastage more, starting to address it.

We've already heard early today what's happening in some of the other hospitals in this area but what it does also mean is as the quality and the quantity of the data increases over the last year, it actually looks like our discards have increased as well. So the discard rate's actually gone up by .4 of a per cent. Now our view is its most likely based on some studies we've done, not based on an increase in discards but simply an increase in the completeness of the data. But either way you'll see red blood cells discard rate at 5.1% nationally. And that hides a discard rate at best practice generally we're seeing is about 1%, very hard to achieve but very good when you do, going from some large facilities down to 0.6%, some facilities we're seeing up to 67%, so the 5.1% nationally hides a diverse range of data and figures behind that.

We are seeing discard rates across the country vary dramatically, even in comparable health services from one jurisdiction to the other so the 5.1% does hide a variety of issues. Platelets understandably expect short expiry product much higher at 17.3 %, fresh frozen plasma about 10%. Overall as Leigh said, the dollar value that we're taking \$27m, \$28m dollars at a conservative estimate out of the health sector that we can't spend on other things to help patients, is probably something we can get under control. Now it's important also to emphasise again what we spoke about this morning with Leigh is that a certain amount of discards of products are actually not only inevitable but also appropriate. We want to make sure that whilst we're doing things to decrease the unnecessary wastage, that we still actually have sufficient products available so that if a patient needs the product, it's actually there at the time they need it, so they can actually get the treatment that's essential for their care.

So that's why when we talk about things we actually talk about discards as percentage of issues because our view is that discards is the whole sum of what happens, wastage is the sub-set. Now in some hospitals that might be most, in some it might not, it's really based on the circumstances. So we'll just give you a quick overview of what it actually, how breaking down within each of the products. So certainly for red blood cells you're seeing time expiry 71.3%. So 71% of products of red blood cells are being destroyed around the country on a routine basis because they're too old to use. Just under 20% for storage and transport. Nothing hugely surprising here, damage is 1.36%, we've seen that drop over a few years.

So in damage really is where its (5.39) there's a problem, its damaged in the lab, really is almost a rounding error, 7% worth of other reasons which might be clinically ordered for a patient not required, it was a rare type of blood special (5.50) typing and it's in a small lab, those type of things are happening, what you really will see is the two areas we do need to focus on for red cells is time expiry, storage and transport. If you go to platelets though, somewhat of a different story. Unsurprisingly, platelet time expiry is much higher, given it's only a five day shelf life, 95% are due to time expiry for discards. Storage and transport, once again, 1%, everything else really is one here, one there. If you look across the hospitals it's very hard to actually find a reason for more than half a dozen units being discarded for the same reason for platelets, other than for time expiry. FFP.

Historically we've always been told that most of the issues are to do with FFP, when you thaw it in the bath it breaks, et cetera. This historically has been put to us as a reason why most laboratories have such a high discard rate for fresh

frozen plasma. You'll see up there 17% is due to discarded for FFP due to damage. Only out of that about a third of that is actually due to damage that's discovered when the unit's thawed. So the work the Blood Service has done over the last few years with the cardboard chippers and the like and changes in laboratory practice have made a radical difference to this, so we're now seeing a lot less FFPs being damaged that way. Time expiry is still the main culprit here. The damage interestingly enough seems to happen a lot in the wards and also in the transport. There's not a huge amount that you can actually put down to when you put it in the bath and thaw, it cracks which is a really good thing to do, we are actually seeing the manufacturing stages are improving and changing and we're decreasing that unnecessary wastage so that's really good work from the Blood Service.

So that's, I suppose, the quick scene at the national level of what we're seeing of what the data's showing us. In terms of actually looking at now what are we doing about it, what we've done is the NBA, in conjunction with all states and territories, has actually developed a new strategy to actually look at how do we actually measure, monitor and change wastage, how do we actually stop it happening where we can but in short we also do so in a cost-effective manner. And so we've developed the National Blood Product Wastage Reduction Strategy, it's on our website, it's a very exciting read I guarantee, like all government strategies but it's also got in the back of it a couple of tables which are actually quite useful. It's a quick two or three page tables of what are we actually going to do that makes a difference? So if you're sitting in a hospital or in a laboratory, what can you actually expect from governments and from the NBA to help you actually deal with this issue in your lab.

So it will show you some of the things that we have coming through the pipeline and we'll talk a bit about some of those in a moment. But it's very much trying to, this has actually been informed by feedback from hospitals and part of that I suppose is actually how we do our work. We are the government, we are based in Canberra, despite common wisdom we don't actually know everything and in fact as Leigh said "I think I spend half my time on the road", it certainly feels like it. Here's an example. On Friday I was actually in Tasmania. What we do is we actually develop a lot of our materials and a lot of our ideas actually comes from meeting with staff in the jurisdictions, from meeting with staff in laboratories and I look around the room and I've met a whole lot of you before in different guises in different meetings. What we're doing very much now is actually focusing on how can we help hospitals and jurisdictions get to where they want to.

So this was to give you maybe a 30 second spiel on what happened at this meeting. Tasmania's had a focus for a long time on a state wide approach to reducing wastage of products, they've had a series of MOUs across all pathology laboratories in the state for over 10 years now, looking at how they can move product around between their laboratories to try and reduce wastage. So it's something they've been doing for a long time and they actually come together every year to review progress, how they're going against it, every two to three years they sign a new MOU and about half the meeting this time around was actually discussing that. But they also look at how they can help each other so for example, they're looking at a whole of Tasmanian approach to implementing a new fridge standard, trying to get accredited staff to do the things, fly them into Tasmania for a whole lot of remote sites, it's not cost-effective so they're really quite good at doing whole of state approaches to it across both the public and the

private so out of the representatives there, we've got six laboratories represented by five staff, that goes across the public and private space.

Julie Tate from the Department of Health in Tasmania is there as well. And so they've actually focussed on all these type of things how could they work together. The other half of the meeting actually focussed very much on the group sitting down, analysing each other's data, what can they actually do to work together to decrease it and while we're there they come up with some ideas we're now going to service one laboratory completely differently based on two large laboratories on either side supporting them so it really is a collaborative approach, where they're really talking together about "what can we do to work on this ourselves?" So that's, I suppose, the way we're trying to do it. We're trying to facilitate that, we're trying to provide tools to help people with this work. And talking about that, the better practice case studies, Leigh's touched on this a bit earlier.

What we're doing is trying to identify where we can, good practice around the country and actually write about it and as we've said "some of them are diametrically opposed", you'll have two case studies that say "do this and you'll get this result", the other says "do that and you'll get the same result". And the answer is "that's fine and that's appropriate if it works in your circumstances". So I do recommend the case studies to you, there's a whole lot of materials there from the data of how people do it to even some cases the forms they've used so that you don't actually have to reinvent the wheel, something you can download, have a look, "would this work in our situation", change it and go from there. The other type of things the NBA has now been working on was we had a strong advice from a number of the facilities that they didn't actually have common guidance anymore for how do you actually implement inventory management in a laboratory?

Many of the newer scientists coming through haven't really been trained in that anymore. They've never actually lived in a time when you had product outages and severe shortages on a regular basis. So what we've developed here in conjunction with a whole lot of the health providers is the Guidelines and Inventory Management for Laboratories. It's not a huge document, it is in essence I would say common sense but it's also common sense, it's written down so you don't actually have to, it gives you a starting point to go "actually that would work for us or that wouldn't". So I really do commend that to you its full of a whole lot of simple ideas why you want to do this, if you look internationally some of the literature you should be looking at, it comes with a simple checklist like "are you doing some of these things?" So it's giving laboratory staff just a simple easy place to go to say "okay, what's the next step I can do?"

And the exciting thing for this is over the next three years we're producing about 10 modules that will supplement this material focussing on individual circumstances or product families. So the one that's coming out, goes out for formal public consultation later this week is all about "how do you actually transfer products between laboratories?" We're told by all the jurisdictions, we're told by health providers, "if you really want to reduce wastage, moving a product around between laboratories is often the way to go" and we've heard about that earlier this morning and I'm sure we'll hear about it again and so what we've actually done is taken some of the best practices we've been able to find, we've captured it, we've documented it, we've looked at statewide MOUs where they exist, we've

looked at arrangements that private and public organisations have and said, "okay, what can work and how can it work for you?"

We've also worked it up together with NATA as well so when we actually get to the point where it's finalised when you're going through a NATA accreditation laboratory, if you're actually following the guidelines, you'll be fine from their point of view. So that's a very important thing that's often stopped people in the past is, how do you actually ensure the fridge has been maintained in an appropriate way, the product's been in temperatures (13.04) and so forth? So we've spelled out different ways you can do that and NATA has been involved in the development of this module throughout its entirety so we're very grateful to their assistance for that. But there's a lot more on the way. There's a huge range of activity happening in this at the moment so for those of you who use BloodNet there's about 12 or 15 reports scheduled to come out between now and the middle of next year.

The first additional set of reports on wastage which is nice simple table summaries that also later benchmark against hospitals of similar size or again, state and nationals will come out in production next week. For those of you who don't have access to BloodNet, I suggest you talk to your laboratories or catch me afterwards, I'll be here all afternoon, we can talk about what we can do. There's also for staff from places like CEC and the jurisdiction there's also another application we can get that you actually get the data out a different way so plenty of data in there, happy to see what we can do to try and get it for you. We're involved in a really great project in conjunction with the Blood Service, the National Inventory Management Framework Project, looking very much about how to actually set appropriate inventory levels, triggers and so forth for red cells so that's an exciting project, there's a series of trials going on and there's a couple of people in the audience who I see are involved in that work so in the next six months you'll see that coming together.

If you've heard about it but you don't know what it is, there's a whole information about it on our website and I recommend it to you, it's a great piece of work. The National Reference that Leigh's talked about, we've got a whole lot of materials coming up there. Transfer module and we're very excited to watch with interest the work that the Blood Service is actually doing in terms of talking to TGA about what can be done, can we get platelets out to seven days for expiry and I think really, if that actually can get up, that's a game changer for platelets, that will really change the entire way people manage it. So we're very keenly following that. So that's enough of the sales pitch of what's coming down the pipeline, what have we actually got for you today and what can you do today. If you actually want to go back today to your laboratories or your hospitals and actually talk about what you can do, it's all the things you've heard already and you'll hear for the rest of the day.

This book really does have some great ideas for you, some great resources and some websites but fundamentally the things that people have implemented these programs and have done remarkably well they tell us it's very simple things. You actually need everybody in your hospital engaged about caring about the product, not just in terms of ensuring that the patient gets it but also ensuring the product is treated appropriately so you don't have porters wandering down the halls juggling the bags, you don't have the traditional thing that happens when the senior scientist goes on leave and the wastage rates go through the roof. It's

very much trying to get staff at all levels real engage with it. You have also heard earlier today the standards, particularly pick up the governance area, talk about that it's not just those staff in the area in the laboratory managing it but it's also the senior management and the board of the hospital that have a role in this.

So my question would be to all of you, do you actually have your wastage rates on your key performance indicators on your scorecards etc for your hospital management group? If you don't, why not? It's a very simple way of focussing attention of making resources available to help you deal with the issue when it's in front of their faces every month. Reviewing your inventory and locations and your levels, looking at where the fridges are, are they holding the right mix of products, are you actually reviewing your inventory levels on a regular basis? Often you'll talk to people and they'll say "oh we reviewed it three years ago" and then they'll go "but we changed our procedures massively", "well are you doing the same mix? Are you actually holding sufficient product to ensure that you're now matching for the services you're doing or are you in fact now holding too much?"

So it is a constantly moving target where you do need to address it, using the oldest product first. We all do it when we go to the supermarket, they put the shortest expiry milk at the front and like all of us, I'm sure you go to the back and pull the thing out of there. It's just like you do when you're delivering blood from the fridge. I've been to lots of laboratories where there's the sign on the door that says "use the oldest product first", there's little whiteboards sometimes stuck on the side of the fridge with the units written up there. Really getting the staff and particularly when you've got staff on rotation through blood bank who are also coming out of the call lab, it's often hard to get them to really understand why it's important but if you can get there, I heard a great case on Friday from one of the Tasmanian hospitals where they now produce out of their LIS every day a list of the red cells that have three days or less to expiry.

They've been doing that for about three months. They now have a 0% discard rate for the common blood groups that they can use regularly, A B's and A's and so forth they have more troubles because they're smaller but for the standard ones they've had zero discards and they just said "we had it on the fridge for years but now every time someone goes in there's that list stuck on the fridge door, they cross off the units" and they said "it really has made a difference". The senior scientist goes on leave, someone still carries through the process and the discard rate doesn't go up, so that's exciting to see. So I need you to put a sticker on the door, all the usual things that people do but really reinforcing it, you need to keep doing it. Looking at cross-matching procedures. Do you cross-match, do you group and hold? If it is on cross-match, how long is it actually on reserve? Is it there for 24 hours, is it there for 72 hours?

I've been to some private pathology laboratories where you'll find the cross-match fridge has three times the amount of stock as their standard stock fridge and you look and that and you go "no wonder they've got trouble trying to actually keep the inventory turning over". You're damned with stock in that way so it's very much looking at those procedures, working with medical staff, how can you adjust to actually ensure that you get the right blood to the patient when they need it but you don't age the blood unnecessarily, you don't waste it. Remote blood fridges, the root of all evil, if I had the solution to that I'd be a rich man. And apart from that, it really is just communication and talking to people. It's the standard things

you do every day but actually ensuring that the staff outside the laboratory understand why they need to talk to you about procedures, the changing, surgeries cancelled, those type of things. It would be terrible to actually hear that somebody got all the anaesthetists for a conference wherever because you go "why is theatre suddenly so quiet?"

So it's those type of things, how do you actually get that engagement working? And the last one I would say is look at how can you work between laboratories to reduce wastage. Whether it's simply within your pathology service two or three laboratories working together or two on side or 10 or 20, look at what is possible and how you can achieve it. And finally on that I would say we are there to help you, we certainly don't have all the answers but I know lots of people who know lots of good things about wastage and I'm very adept at connecting people around the country so have a look at the website, give us a call and apart from that, thank you.