

ADL - Peter O'Halloran

This afternoon we're moving on with criteria three and four and the first one we're addressing is criteria three, managing blood and blood products safely and our first speaker actually comes from the National Blood Authority and it's Peter O'Halloran who is the Executive Director and Chief Information Officer for Health Provider Engagement from the National Blood Authority.

Peter has got extensive management experience across the university and government sectors. He joined the Authority from the National Health and Medical Research Council in 2008 and as the Director of Corporate Services and Secretariat was appointed as the inaugural Chief Information Officer in 2009. He's also the front man for the organisation in terms of engaging with you, the health provider.

For his crimes those people who he deals with in this next criteria is very much or it relates to this next criteria is BloodNet, which in the last two years has provided significant improvements in the sector and Mr BloodNet is Peter O'Halloran. So please Mr BloodNet come on down.

Thank you Leigh. I'm not quite sure how to live up to that so I'll just give up hope now and keep moving forward or get to the jokes. Thank you everyone. I'll try and keep it short and to the point. Moving forward from here you're going to hear from three other speakers in the next session very much talking about how does this actually look at a health provider level, so my apologise if I'm somewhat high level. Focusing again why we're here, we're very much looking at 7.7, 7.8 underneath the standard. These are the areas that we're focusing on today or rather in this session.

Those of you who have seen BloodNet might recognise this screen, those of you who haven't trust me the world won't stop spinning. BloodNet in essence is, for those of you who haven't been involved in it, an online system where you can order blood and blood products for a hospital, report inventory levels, report discards of units, transfers between laboratories and the like. It works well but using it I suppose it's the same thing, if you can use eBay you can use BloodNet, although perhaps we should start auctioning blood.

A couple of things to mention quickly about BloodNet for those of you who haven't seen it. It's just gone through a significant revamp, a whole new look and feel to BloodNet. It's the biggest facelift in about six years since its inception and the new functionality seems to be working quite well.

BloodNet is now covering in excess of 95% of issues by the Blood Service nationally. So it really is covering pretty much everything. We're missing things like GPs that get anti D once in a blue moon and those types of things but in terms of laboratories and hospitals, we're pretty much covering it.

One of the things that we really have been focusing on in the last year or two is getting BloodNet, completing the implementation and also enhancing the screens and the functionality. To some extent what we haven't been progressing as fast as I would have liked to have been and we're now rectifying that is focusing on

reporting. A lot of the work that we now have underway is actually revamping all the reports from BloodNet and actually giving them to, so you get both the raw data extracts, so if you want to know why is that number on the nice pretty graph on the front x you can drill right down into the data. Our view is it's your data so you should be able to get it. But we're also now starting to produce some new reports that very much take it up to a higher level.

I've just got a quick screen shot of our website here for a couple of reasons; first of all to talk about a new report that came out a couple of weeks ago and we haven't yet started promoting which has the lovely title of "Fresh Blood Orders and Issues Extract". For anyone who actually wants to understand the details of all the units that have been issued to the laboratory, if you want to work out for example, I don't know, what proportion of stock you are getting is irradiated or CMV neg or how old is it issued from the blood service and those type of things, that report gives you all the raw data so you can sit there and Excel to your heart's content and manipulate it for days on end. If you don't like doing that and you're like me and you want something a whole lot simpler we have a couple of reports that are coming out in the next week or two looking at wastage that bring up very much to a simple table format that allows you to look at your discards compared to the state average, compared to the national average, compared to the AIHW peer group.

So we're starting to bring data in now for comparative data so that you can start benchmarking yourselves against other facilities. So the new Fate reports, the first round of those hits the streets next week. They've just finished the final testing and so we're now getting that type of data out. Over the next 12 months there's a fairly aggressive campaign of a whole range of new BloodNet reports. As we produce them all the information will be going up on our website including specifications. So if anyone asks you the details of how did that get there, there's the detail and the data for it.

We might move quickly then and look a bit at wastage and I'll touch on collection, transport and storage as we go through the discussion.

Overall, if we have a look at the last financial year, as Leigh's touched on before, around \$27m to \$28m worth of discards of fresh blood components in the last financial year across Australia. You can see the figures there, 70 odd thousand units. That's potentially up to 70,000 donations of product that we're wasting. As Leigh mentioned earlier some of those discards is entirely appropriate in ensuring that you actually have the products where and when patients need it particularly in remote sites but a whole lot of that also is perhaps through inventory management practices that we can improve and enhance to decrease that unnecessary wastage and that's really the focus of what I'm talking about today.

It's also I suppose important to note that over the last two to three years there's been a big focus on this from governments. There's been a big push in terms of enhancing the data quality and the data capture across the sector. So we've gone from two years ago less than half the discard data across Australia was captured to where we think we're now above 90%. So we've actually seen the discard rates slightly increase and certainly based on some sampling done we don't believe the actual rate of discards are increasing rather the data capture is increasing. So for everyone who has been working in this space for the last year or two it's slightly disheartening to see the new national figures come out recently

and there's been this slight upward trend, we actually believe that that is more to do with people are now really capturing that data.

But that gives you a rough idea of what we're talking about here and the figures aren't surprising, it's in essence what you would expect; and what I'll do is run through a bit of the reasons for discards.

If we look at red blood cells. Over 70% of red blood cells are discarded due to time expiry, in round number 20% for storage and transport. So in the past the argument has often been "well it's gone out of temperature spec or it's gone out for an excursion outside the laboratory we're not quite sure so we can't take it back in to inventory" fair and appropriate and if I was receiving a blood product I would want to know that it was actually safe; but 71% due to time expiry and that's an area I think it really does indicate we can do more work in that area.

Under storage and transport about a third of that is where the conditions are unknown, so there may be some work that we can look at doing in the future with data loggers and the temperature dots and those type of things but that problem isn't nearly as big as time expiry.

If we go to platelets, unsurprising on a short expiry product 95% are due to time expiry. That's really what you'd expect to see; a small amount in storage and transport. If you go through the data behind it there's a unit here, a unit there, it's nothing that we can identify are systemic problems that can be addressed.

If we talk then about FFP, historically people have often spoken about the problems with FFP are very much you put it in the bath to thaw it out to use it, the plastic cracks because understandably it's gone down to minus whatever. The data isn't bearing that out; 62% is due to time expiry and a large proportion of that is due to expiry that is for a product that has not been thawed. So that's something to think about, we have a product where it's got a long shelf life yet we're still discarding it due to time expiry. If it's thawed you get a much shorter period of time, that's understandable. Some of the work around for example the new guidelines that extended life plasma may provide some tools for some sites to manage that product a bit better but a lot of it is now expiry for product before it's thawed. So that's something to think about.

If you look at the damage, 17.72%. Given what the product is subjected to as part of the manufacturing process I'd say we're looking at a reasonable figure there. The Blood Service over the last few years, the work they've done with the new cardboard shippers around the units, other packaging enhancements, laboratory staff starting to take a lot more care of these things in the freezers has brought that reason down significantly. There's still room to move and to improve but I think we've largely started tackling that issue. So that's the lovely setting the scene for you.

We're government so of course we have a strategy. You can't do anything unless there's a plan and a chart and a timeline and everyone knows I love doing those things, so here we go.

What we have developed in conjunction with all the states and territories is a wastage reduction strategy. It's a very exciting read. We have tried to keep it short and sharp and to the point and we've tried to make it relevant. So if anyone

was actually interested in reading a reasonably short strategy document, it's still got more fluff than I'd like but I do work for government, it's on our website and I'll give you the address in a minute.

What we have tried to do however is put in the back some simple tables that actually allow you to look at what are we doing over the next 12 months, 24 months, 36 months to actually provide you with tools and data and assistance to actually help you tackle this issue. So I do urge you to have a look at the report and to have a look at the strategy, have a look at the set of tools and actions we are proposing. If there is something that we should be doing faster to help you now is the time to speak up. Please feel free to get in touch with us, I'm hard to miss at various times and contact details are on the website. But this is really what we're trying to do to help you so make sure that we've got it right. If you've got other ideas contact us.

And I suppose while we're on that process let's talk a bit about I am from Canberra, I am a bureaucrat, I haven't worked in a hospital, I don't have all the answers, in fact I probably don't have even a 10th of them and so all the work we're doing in this space very much is focused around collaborating with people, with staff in hospitals, in laboratories, in the jurisdictions and I suppose this is something, I was only there last week so I thought while I was there I would grab a photo for something timely for this week; but in Tasmania they've had state-wide MOUs for a number of years between the public and private laboratories to move blood and blood products around the state to try and reduce wastage and certainly South Australia is doing a whole lot of work in this space too. But it was really interesting and I got the pleasure of going along to that meeting to join them and to help with some things they were doing, to see that they've really got a collaborative approach whereby each of the different staff and all the laboratories in Tasmania represented there, public and private, they looked at each other's data during the meeting and were discussing what they could do to work together to further improve and enhance it and that's really what I thought was great.

There was collaboration across public and private between people that were otherwise in some respects competing with each other for work to actually look at this as a shared problem across the state and I think really that's how we need to be moving in the future and it's great to be here in SA where that's actually how you're moving as well. But for some of the other states I think that's perhaps an area, particularly in the more eastern ones, where we have a lot more work to do.

So what are we actually doing to help you rather than just me talking? First of all we are starting to identify, as Leigh talked earlier about some better practice case studies and some of you, I've probably stolen someone's thunder partly here for the diagram so I should have cut that out for today. There's three case studies on our website, there's a fourth one on the way and there's a whole lot of other materials coming on over the coming months. We don't have all the answers but other people around the sector have a lot of them.

The one important thing to emphasise for the case studies is we're not saying this is how you should do it, we're saying this is what somebody else in the sector has done, this is what they've achieved and this is how they got there; and if you read some of those case studies and inventory management you will find that they're almost at two extremes. You've got on one side for one of them saying "do x, y

and z over here" and the opposite extreme over here, someone else in another case study saying "do this" and yet they both got to great results. And I think that very much emphasises my point that there isn't a one size fits all approach. What works really well for one laboratory might work appallingly for another. So take what's available, adopt it, mould it and change it for your purposes.

I won't steal any more of your thunder Rick and Merrilee, my apologies.

Some of the stuff we're also doing, hopefully a couple of you have seen the handbook, Managing Blood and Blood Product Inventory, Guidelines to Australian Health Providers. It's not revolutionary but all it is in essence is common sense but what we've tried to do is actually capture that common sense and put it in a single place where staff and laboratories who might want to do better things in inventory management but haven't really thought about how they could, it gives them a starting point to sort of talk about what are some of the references, what are some of the ideas of things that people have done that have worked and it goes from there.

Now there's a series of 10 additional chapters or modules that will be coming out over the next two or three years for that, the first of those will be transfers, so actually capturing in much more detail about how do you transfer product from laboratory A to laboratory B, whether it's reducing wastage, whether it's in patient transfers and a whole variety of other things. Some of you in the room have already seen early drafts of that for comment. Public consultation starts at the beginning of next week and what that does very much is the feedback we've had from a lot of jurisdictions is moving product between laboratories really does help you to reduce wastage but also ensure you actually have product where and when you need it for patients. So it's got a whole set of tools in there, some ideas on what you can do, sample MOUs that people can look at to actually set common expectations across laboratories.

There's no good having a great arrangement in place whereby you know you can trust their cold chain, you can move product around, everyone's really happy, you've got documentation and then two days before the units expire you get a shipper or three of blood land on your bench and go "here's all our blood used before it gets discarded". So things like the MOU will pick up about the communication between laboratories, common understanding of if you're going to transfer for example red blood cells have a date that you all agree is actually relevant. So it might be that you transfer them with 14 days to live or seven days to live or whatever works for local circumstances. We pick up some of those things in the guideline and actually talk about why these things are important for people to consider.

It's also got simple checklists of these are some of the things you can be doing. So we're trying to make it very practical and things that you can simply grab it and go "yep, that's exactly what I need" use it or "that doesn't work for me but I can do something else over here". So that's some of what's happening and available to you now.

Now into the world of vapourware because I do work in IT so I can talk about stuff that doesn't exist yet. Enhanced BloodNet reporting, we've touched on some of that, there's another two reports coming out on wastage. Over the next 12 months all you're going to see if you're involved in laboratories is Data and

BloodNet. If you haven't got access to BloodNet Reporting talk to your laboratories, if you're not in a laboratory, to see what data is available and what they can get for you. If there's something else you want that isn't there contact us please.

There's also a great project we're doing in collaboration with the Blood Service and the jurisdictions and a number of health providers which is the National Inventory Management Framework project. That's actually looking at how do we set appropriate levels for inventory holdings for red cells, what are the trigger points for re-stocking and the like and certainly there's been good work done here and certainly Flinders have been involved in that pilot process. If you're interested in the NIMF project, we haven't got all day for me to talk but there's a whole lot of information on our website including regular project updates.

Leigh touched on the National Reference Set and in the next few weeks you'll start seeing the tools coming online for that. Transfer module we've already talked about; and for me one of the most exciting things that we're looking at is we're watching very keenly the work the Blood Service are doing to look at can we actually go to seven day platelets. So certainly we await the outcome of that process with interest. To me that's a massive game change which will actually enable us to do fundamentally different things with platelets and radically change the discard rates.

Now onto concrete things going away from today. Now you'll hear in the coming moments about other things that are being done here in South Australia to actually really look at how you address wastage, how do you deal with some of these processes? Some of the things that I've learnt talking to people across the country, as I said they're all common sense, is getting a culture of best practice across the facility. Whether it's laboratory staff, so we get away from the idea that as soon as the senior scientist goes on leave wastage rates go up, very common, shouldn't happen, how do we get junior laboratory staff engaged, particularly those who rotate through Blood Bank and then go out to do other things in the core lab, to actually be engaged with inventory management.

How do you get management buy in and certainly we heard earlier from Michael about looking at Standards 1 and 2, they very much pick up the governance aspect and pull everything else up to the top level for management so what I'd be asking for everyone, one of the key things in the Standard 7 is wastage reduction. If your organisation is anything like our one trust me you've got dashboard reports, management reports, KPIs coming out of everywhere, make sure that wastage and your wastage figures are on your hospital's senior management's dashboard to reports. There's no better way of getting buy in and support from them and resourcing than them seeing when they're looking at all the compliance and standards, how we're tracking against these things, to see wastage there and if you've got a problem getting some support.

That being said, given we're in South Australia I can talk good news as well. If you look across the country South Australia has some of the best practices for reducing discards in the nation. Comparing the discard rates in South Australia to other jurisdictions, it's a joy being here. We see incredible variation across the country, from best practice of maybe 1% discard rates for red cells up to some laboratories of 60 or 70% discard rates. In South Australia however we see across the whole state you've got some of the best discard rates for blood

components, so well done to everyone who has done work on that.

Reviewing your inventory locations and levels. Things change these days it seems on an almost constant basis, you need to ensure that inventory levels and locations are regularly being reviewed. Remote blood fridges are the root of all evil I'm convinced, so looking at those things, how you can try and reduce the number of remote blood fridges where for example you might have a remote blood fridge in oncology or in emergency or in theatres or anywhere else that someone thought they might want and you couldn't get an answer of no, the new blood standards are a great way of rationalising some of those in some respects. But it's also very much looking at the research that's out there in terms of possible issues about the age of red cells upon transfusion and historically a lot of those remote blood fridges, you've almost had two parallel inventories in hospitals, you've got the emergency O negs in some of those things in those fridges which aren't really managed by the laboratory and so the product seems to get older and older and older and you've got the nice inventory being managed by the laboratory down here where it's much fresher. So that's some of the things that you can start talking to clinicians about that might actually get engagement from those areas because I'm yet to meet a clinician that says "I'd love to transfuse blood at 41 days". So use some of the things that are happening in the developments and the research to try and change product use.

Using oldest product first – it sounds simple. We all go to the supermarket and they sort the milk very carefully, the shortest expiry at the front, oldest at the back and like me you probably always go to the back of the fridge and grab the new stuff because I'm not paying that much money for what seems a ridiculous amount of money now for milk to have it go off in three days. For blood possibly somewhat different but it really is important. Most labs you go to there's a sign "old blood on this shelf" or "these are the three units you need to use today"; really getting staff to do those and do those things well I've spoken to a couple of laboratories recently where they actually produce a report from their LIS of products, red cells three days to live, five days to live and they actually have their staff every single time they're issuing a unit check of again that list and see if there's any of those units they can actually use before they get something that's a bit fresher; and that's a really good way they're reducing for their common blood stocks discards down dramatically.

Optimising cross match procedures – do you cross match, do you group and screen group and hold, if you do a cross match, particularly in the private sector, how long does it actually sit on cross match? We're seeing best practice in many cases now on a routine basis about 24 hours and if I walk into many private laboratories it's still 72 hours based on historical clinician practice and preference. Reviewing that can really enable you to do a lot of changes.

One lab I was in recently their stock fridge had maybe 25, 30% of their total stock holdings, everything else was sitting in the reserve fridge that had already been crossed matched from sitting on reserve. How that laboratory can actually manage their inventory when three quarters of their product is allocated out to patients is beyond me and I wish them luck. So I mean reviewing some of those practices may help you.

Remote blood fridges we've touched on.

The other part is very much this is a shared problem, it's not just laboratory staff's issue to resolve. It requires constant cooperation from the wards, from the users of the products, from the clinicians prescribing, from the theatre nurses and so forth; getting them to understand some of the issues and earlier in this week there was some discussions from some of the other speakers at other symposiums about you almost need someone to translate what's being said on a scientific basis from laboratory to nurses and clinicians who seem to think they that they talk a different language and whether you can use the transfusion nurses, the Blood Safe nurses, the PBM staff to do that, it does seem to work better in jurisdictions where you've got that ability to use those resources to really get the message across and to get someone on the ward being a champion for the lab.

The biggest single thing I can say that we've seen that has reduced wastage dramatically where it's done is where laboratories work together to share the pain and to try and actually spread the inventory management across their laboratories. That's the single biggest thing you can do, if you're not already doing it and thankfully here in South Australia you are to a very large extent and very well to reduce wastage.

And that is the end, other than to say I am from the government but despite that I am actually here to help. There's a whole lot of information on our website, there's a whole lot more coming. If this is something that you're interested in and you're working on have a look at what's on our website, give us a call, we probably won't have the answers but we might somebody else is doing something really good in that area and we're happy to connect you with them so you can actually talk to somebody else who has been in that situation and done something and you might be able to learn from some of their practices.

So on that note, thank you.