



Evening Medical Update: Cardio Respiratory Arrest **Tuesday 29 October 2019**

Resuscitation Guideline Highlights – Dr Alan Robertson

Is it safe or sensible to be giving IVI adrenaline so frequently during cardiac arrest?

As mentioned there is not particularly strong evidence for many drugs during cardiac arrest, however, we'll see if there are any further changes in the 2020 guidelines. It is actually slightly less frequent now than the older guidelines!

In the ECG showing the changes of hyperkalaemia, is the ST depression significant?

No, the changes were related to the electrolyte disturbance.

How would you approach the management of a patient in complete heart block on a distant island with a potential air/land/ air transfer of 2.5 hours?

Depends to an extent on how stable the patient is but isoprenaline could still potentially be considered – we use it for DGH transfers locally. I'd imagine temporary pacing not readily available.

Do we need to anticoagulate before cardioverting with amiodarone? For example, in the acute setting with hemodynamic stability (using treatment dose dalteparin etc.)

If haemodynamically unstable then DC cardioversion should be the priority. Generally if within 48h of AF onset then we're comfortable with cardioverting. If the patient has a high CHADS and would require anticoagulation anyway then certainly no harm in starting. If stable and >48h then anticoagulate and delay cardioversion until after 4-6/52 of anticoagulation.

Which beta blocker would you advise for stable narrow tachycardia - oral / IV?

I'd almost always go oral – if any concerns regarding BP then would use metoprolol as it has a shorter half-life (generally given tds).

What would you recommend after trying Valsalva and adenosine?

Depends on the findings. If you've demonstrated underlying flutter or atrial tachycardia then rate control. Would be quite unusual for AVRT or AVNRT to not revert using adenosine. In that case may still give rate control but also may want to seek Cardiology advice re more advanced drugs such as flecainide.

Will the shocks and antiarrhythmic work in case of underlying precipitant like hyperthyroidism or sepsis?

Normally yes but depends on the extent of the underlying precipitant and certainly much more likely for the tachycardia to re-initiate. Rate control normally preferred over rhythm if there is a clear underlying driver.

When do we call the cardiologist for SVT and how do we differentiate it from atrial flutter with aberrant conduction?

If concerned about the patient or difficulty reverting out of SR. If straightforward reversion then normally doesn't need seen as an IP and could be followed up as an OP (please ensure 12-lead ECGs in tachy and SR provided if possible!). If atrial flutter then you should see underlying flutter waves when adenosine is given. If aberrant conduction then would be broad rather than narrow complex tachycardia so is probably more likely to have been managed as VT.

Can you use Valsalva (modified) for treating paroxysmal AF in the primary care setting or is it only for regular SVT?

Would only recommend for regular narrow-complex tachycardia, similar to when you would use adenosine.



Timely referral of potential organ donors – Dr Iain Macleod

Are there any ways to make organ retrieval any more accessible in rural island communities such as Orkney?

Yes – we have carried out retrieval from Fort William and there is nothing to stop retrieval teams travelling to Island hospitals such as Orkney and Shetland. However, the vast majority of potential organ donors will be transferred to mainland hospital for ongoing treatment – e.g. management of Intracranial Haemorrhage. Organ donation does not commonly come up in the very early stages of assessment. We need to give the patient every chance to get better rather than become an organ donor. If the situation arose whereby the decision was either to lose a donor or facilitate donation in a remote rural hospital, we would try to facilitate the donation.

Do you think organ donation should be an opt-in or opt-out system?

This is tricky. The evidence would not suggest one is superior to the other. Opt out does produce more donors pmp in Wales than in England in a recent study – as yet unpublished. What is more important is next of kin knowing their loved ones wishes and being prepared to support them.

Just curious to know. You said organ donations from Scotland were just under 100. Which part of the UK was top of the list for organ donation?

It depends on how you measure this – Wales saw the best figures last year for its population size. In the financial year 18/19 there were 1600 deceased organ donors in the UK.

Paramedics can stop resuscitation if a patient is in asystole for 20 minutes of ALS. Is there benefit to conveying such patients with CPR ongoing for potential donations?

This is called Maastricht Category 2 donation – a trial donation in these patients was carried out at the Royal Infirmary of Edinburgh. At present there are no programmes in the UK whereby donation occurs in these circumstances. It relies heavily on resource in the emergency department and requires very early identification of donors and femoral cannulation in the emergency department. It would also require immediate attendance by retrieval surgeons to facilitate the process. Thus limiting the centres at which it could be carried out. Tissue donation may be possible from patients in these circumstances.

How will the change to opt out affect your discussions with relatives with regards to organ donation?

I think that families will know more about Organ Donation and so are likely to bring it up as part of the conversation earlier. Our discussions will still involve discussing with families to ensure we know the patients last known decision. People do change their mind and we want to be as certain as we can be that we are acting in their best interests. We will have a conversation to ask about their decision about organ donation – have they opted in, opted out or are they in a deemed situation. If they are in a deemed situation, we will have to ensure they meet inclusion criteria – i.e. have mental capacity to make the decision, be normally resident in Scotland etc.

Is there an age limit associated with organ donation?

Officially there is no age limit, but clearly organ function declines with age. It also depends on who is waiting for a transplant. We have carried out retrieval on patients in their 80's. Paediatric and Neonatal donation is also possible at the other end of the age spectrum. This is a constantly evolving field and so it is important that clinicians refer to specialist nurses without prejudice as to whether their patient would make a 'good' donor. There are very few absolute contraindications to organ donation.

Does religious and cultural background cause much friction with donation? Many religions require rapid burial with the body "whole".

There are undoubtedly religious and cultural issues with organ donation. Every major religion in the UK supports donation in a broad sense. There are some religions which are particularly sensitive around some of the issues raised by donation. A large volume of work has been done with religious communities to promote organ donation and we continue to engage with communities to create a greater understanding of these issues.



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Isn't it best for the physicians to stay away completely from the discussion of organ donation and leave it for the specialist nurse to avoid conflict of interest?

Please have different opinions on this one. Increasingly we are seeing physicians handling over the discussion with family. Ultimately I do not think there is a conflict of interest if we believe we are acting in the best interest of the patient. However, we can hand over much of the process to the specialist nurses and ultimately if a physician were to feel conflicted and medial input were to be required, this could be handed over to another clinician.

Donor with HTN and DM and transplanted heart to a young person. What are the chances of these disease in the new organ owner?

There is always the risk of transmission of pathogens and tumours when transplanting organs, though these risks are very small. I am afraid I can't answer this as it is not my area of expertise. It is fair to say that risk of transmission is something that would be weighed up by the transplanting team and the risks and benefits discussed with the patient prior to going ahead with the transplant.



Prevention of cardiac arrest and DNACPR decisions – Dr Vicky Tallentire and Dr Juliet Spiller

Regarding Tracey's case - you don't need to discuss deciding not to give a heart transplant/dialysis etc. even if not giving will be fatal - why is DNAR different?

The Court of Appeal judges were very clear in the Tracey case that it is different! They ruled that the information that someone was so ill that CPR would not work if their heart was to stop was very significant information and that all individuals had a Human Right (Article 8) to know their own information in that regard. Have a look at pages 10 and 11 of the guidance from the RCUK, BMA and RCN 'Decisions relating to CPR'

<https://www.resus.org.uk/EasySiteWeb/GatewayLink.aspx?allId=16643>

Isn't there a need of culture of Treatment Escalation Plan to be put in place early enough and utilisation of simple tool like SPICT made more common?

Yes, it is a culture change that is needed, where we have these discussions openly with patients when they are feeling well and thinking clearly. That is exactly what the ReSPECT process (www.respectprocess.org.uk) was designed to promote and facilitate. Ideally this process/conversation would be started early in a person's advanced illness and evolve as their condition changes. Embedding early identification tools such as SPICT into day to day practice is often challenging but would certainly be of wide benefit.

I struggle with how end of life care planning is discussed with the patient. (Behind a curtain in a bay of patients) How can we change this? Specialised rooms?

Agree it is never ideal when you are feeling like others are listening – not as dignified and private as we would like sometimes. Try to use relatives' rooms when available for all these sorts of discussions. Opportunities to start these conversations early in someone's illness can present in outpatient clinics and other non-ward environments where privacy and dignity can be assured. Conversations in the acute setting are then less of a shock and regarded as the next step in a positive process so less traumatic when they absolutely have to happen behind a curtain.

Isn't it true also 4 patients with learning difficulties or other disabilities - risk being put DNCPR not based on lack of efficacy of CPR but on biased/perceived QOL?

Yes we must move away from making judgements about anyone's QOL – whether they have LD or not. Creating early opportunities to have conversations about planning ahead and 'what matters to you' with patients with LD and those who know them best and advocate for them is crucial. The ReSPECT process was designed with exactly this in mind.

It is a failure of care of duty that these discussions are not happening in primary care before the crisis in hospital occurs. How do we change the culture?

Agree a culture change needed but it isn't the responsibility of one group. Primary care have such short appointment times and are under such pressure with service gaps that is certainly shouldn't fall on their shoulders alone. There are lots of other opportunities in specialist outpatient clinics etc. with teams who will know the patient and family over many months' years. If any healthcare professional starts the conversation and communicates that then others will pick it up and evolve it but it is everyone's responsibility.

What would you advise in situations when resuscitation is not appropriate but the patient (or family in case of a patient without capacity) are adamant that they want resuscitation?

This does happen and sometimes we fail to reach an agreement. But those situations are and should be extremely rare if the conversation is approached from a 'priorities of care' perspective. Be mindful that the language you use with patients and families is really important – 'futile' and 'inappropriate' are easily misunderstood as doctors 'judging' that someone's life is not worth saving. If CPR **definitely won't work** say that clearly. 'CPR will not change the fact that death has happened – it will, however, prevent you dying peacefully and with loved ones around you'. The excellent Dr Lynda Dykes provides lots of tips on this on twitter @DrLyndaDykes.



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Are there plans to allow hospital doctors to update the KIS?

Yes, this is going to form part of the upcoming digital revolution in healthcare here in Scotland – watch this space! Check out the National Digital Service team blogs <https://scottishdigitalhealthblog.nes.digital/nds/a-little-bit-of-respect/>

Community DNACPR may not be suitable during acute hospital admission (especially MI) due to better access to treatment (defibrillator) for reversible cardiac arrests.

Agree, all these decisions depend on context and can be suspended or revoked at any time. It is so important to review every escalation plan when the care setting changes for exactly this reason. ‘Realistic’ treatment options in hospital may not be realistic at home and vice versa. Also remember the same can apply on leaving the ICU or HDU care setting. Ask what outcomes matter to the patient and consider what is possible to offer in the care setting?

Is it viable to have a register of what people want to happen to them before they get sick/get to the hospital? Like the opting in and out of organ donation.

I guess that would be ideal but difficult to set up and access when required. All good food for thought.... That is one of the things that the Scottish National Digital Platform Team have in their sights so watch this space! The ReSPECT process supports the emergency bit of this and will be accessible digitally across Health and Social care in Scotland and hopefully soon in many other parts of the UK. The process/conversation should be started as early as possible in someone’s illness and evolve over time as their condition changes.