

SATURDAY MORNING 9AM:

- "TRAUMA CALL RED" put out from our A&E department after receiving a call from the ambulance service:
 - 23 year old male found in a door way of a house in Lerwick, Shetland by one of our nurses coming home from night shift
 - Stab wound to left chest and a lot of blood on the scene
 - O2 via mask, Tranexemic acid i.m., unable to get iv line, pressure dressing on chest wound
 - "Scoop and run"
- Switch board staff phone everyone on our trauma call list:

ARRIVAL IN A&E OF GILBERT BAIN HOSPITAL 9.15AM:

- Trauma Team assembled:
 - A&E nurses
 - Theatre nurses and ODP
 - 1 junior doctor
 - 1 anaesthetist
 - 1 surgeon
 - Laboratory staff
 - Radiographer, first forgotten, but called soon

ASSESSMENT ON ARRIVAL

- Glasgow Coma Scale 15/15
- Talking, alert, pale, very still
- BP 90/65, HR 100, sinus rhythm
- Bilateral air entry, O2 saturation 100% on O2 via mask
- 2 stab wounds (each about 2 cm in length) :
 - 1 superficial right posterior forearm (?defensive)
 - 1 left anterior chest wall near sternum at level of nipple
- PMH:
 - Iv drug user no veins! chronic wounds and sinuses in both groins
 - Hepatitis C unclear sero-status
 - Previously DVTs and PEs on Dabigatran 250mg at least 1x/day (this is given under observation at the Methadone program)

OUR MANAGEMENT:

- Iv access by the anaesthetic team via
 - Right internal jugular 3-way central line under ultrasound control:
 - We can send blood to laboratory
 - We can give iv fluids
 - But: lumen too small for CT scan contrast arterial phase
 - Left upper arm "midline" under ultrasound control
- FAST scan in A&E:
 - No free fluid in abdomen or pericardium
- Iv antibiotics, tetanus vaccination
- Patient remains "stable"
- Therefore decision to proceed to <u>CT SCAN</u>

CT SCAN 9.55AM:



- Left haemothorax
- Tracheal deviation to right
- Most likely bleeding from left internal mammary vessels



ON RETURN FROM CT SCAN:

- Patient started to deteriorate:
- Becoming restless
- BP dropping, heart rate increasing

TREATMENT DECISIONS:

- Start blood transfusion
- Activate "massive blood transfusion protocol" to get:
 - O-negative blood
 - FFP
 - Cryoprecipitate
- Platelets are not available on island as their shelf life is too short
- Left thoracic under-water drain:
 - 32ch drain inserted: drains 1.7l over the next half hour
- Phone call to SCOT-STAR for retrieval and advice

ABERDEEN INPUT:

- Yes, they will retrieve patient and are sending a helicopter with <u>retrieval team</u>
- Radiologist phones with the verbal report of the CT scan
- Haematologist advises on anti-dot to Dabigatran and we really have it!
- Very nice <u>Thoracic surgeon</u> comes on the line:
 - "what is the "base excess"?"
- My thought:
 - "bloody hell: I am a surgeon. I never look at that. That's for the gas guys. Where in this mayhem here do I find the print out? And where the hell on the print out is the base excess result?"
- But there it was: -11.8
- Very calm voice from thoracic surgeon: "If it is lower than -5 you need to do a thoracotomy asap. Get some clip applicator. And good luck to you!"
- Me very quietly: "O.k.! Thanks."



THORACOTOMY

- There are by now 3 anaesthetists giving fluids, blood, clotting factors, antidotes, Adrenalin and a GA
- Patient is catheterised
- Patient is too unstable for transfer
- Thoracotomy in A&E:
 - patient turned onto right side
 - I do a left thoracotomy
 - Radiology is correct: internal mammary bleeds
 - Head torch helps (thanks, Edna, that you walk your dogs with that in the dark!)
 - Some sutures and clips later the bleeding stops and the situation stabilises
 - I leave the drain in situ and close up.
- By the time the retrieval team comes, all is clean, patient stable and wrapped up warm, family gathered around



THE TEAM EFFORT:

When the prevention has failed.....

We had systems in place

We rehearse scenarios

DISSECTING HEALTH Scarlett McNally

on to do their very

acquiring knowledge.

All of those years

Healthcare is not about the one-off heroic intervention

Society has to recognise the role of prevention in keeping us healthy

eing a surgeon is a huge privilege. skills, and experience pay off. For surgery, Each patient puts their read any intervention: the same applies trust in you and the to operations, radiologically guided perioperative team. interventions, clot busting, or delivering There are hours, babies. These procedures are palpable days, even months of planning proof of how far medicine has come, all for the critical minutes of and it's easy to see why they capture the oncentration in the operating public's imagination. neatre. Minutes when everyone is cused on one outcome and u have everything you ed: lighting, equipment, ition. It's all "perfect." he whole team's rts-before, ng, and after the ation—enable the

Yet there are consequences when people start to think that this concentrated. focused time is what healthcare is all about Most healthcare isn about one-off hero interventions, but the public and the media have a vision that

fuels this myth. The press seizes on

WHAT WENT WELL:

- The nurse who found him called the right people!
- Pre-hospital Ambulance team were spot on with decision making, phoning and treatment and were fast
- A&E staff used "TRAUMA CALL RED" timely and appropriately
- We followed ATLS precipals
- "MASSIVE BLOOD TRANSFUSION PROTOCOL" helped
- We have antidote to Dabigatran
- Very supportive phone calls from ARI:
 - Haematology
 - Radiology
 - Thoracic surgeon
- Scot Star activated retrieval timely and fast
- Having a "THORACOTOMY" theatre set ready made
- Ct scan allowed me to do the left thoracotomy that I was familiar with rather than going for the "clam shell" which I only know from courses on cadavers

WHAT COULD BE DONE BETTER/DIFFERENTLY:

- Further option would have been interosseous access
- Head torch should be available in A&E
 - Will the batteries work, though?
- We will order some longer instruments for the thoracotomy set
- May be I should not be so scared of Dabigatran

2 WEEKS LATER



- Patient walks into out-patient clinic
- Not breathless
- Wounds are healing well
- I am mortified that I did not put the tattoo nicely back together!