Australian College of Rural & Remote Medicine
WORLD LEADERS IN RURAL PRACTICE

RuralEM: Emergency Medicine: worth talking about

A/Prof Bill Nimo
Dr Peter Arvier
Mr Lex Lucas

Declarations

- Other than Lex and Peter are good mates and I have a few other mates here to help me…..NONE

Background

- Emergency Medicine (EM) practice in both rural and urban areas can have limited exposure to high acuity cases
- In large cities, high acuity EM is usually directed to specific specialist hospitals.
- “Fast tracking” to specialty units can reduce scope of practice even for metro ED physicians
- “Standards of care” often driven by academic centres or government policy and $$$$$ ☺

The challenge of rural EM practice . . .

- Rural Hospitals have the potential to see the full spectrum of EM but lower volume.
- Rural doctors need to be “generalist” as well as “specialist”.
- Can be long lead times for retrieval and transport
- Limited human and physical resources
- Patient expectations can vary widely

Surat Hospital Qld

Why develop ruralEM? Why/How?

- Hosted by ACRRM on the RRMEO platform
- Aimed at doctors-in-training and rural practitioners with significant EM case load.
- Real cases selected and moderated by experienced rural practitioners.
- Focus on management in the less well resourced and more isolated settings.
- Cases mapped to the ACRRM AST-EM curriculum.
- To develop a continually updated resource on challenging and complex rural EM practice.

Lets take a look……

Moderator

Posts: 268
Whitfield
QLD

dr Minh Le Cong wrote:

posted 19-04-2017 13:51

You are doing a fly in visit to run a GP clinic at a remote Indigenous community. The nearest tertiary hospital is 2 hrs flight away by fixed wing aircraft. The local clinic has 2 nurses and 3 local health care workers, 2 consulting rooms, a treatment room that doubles as the resuscitation area, a basic pharmacy stock room, no Xray/no pathology apart from point of care ISTAT device. You are the only doctor onsite during your visit of 3 days.

On the second afternoon at 4pm, the police bring in an acutely agitated 13 yo Indigenous boy who was found by his aunty in his room trying to hang himself by a rope. He was not injured but the aunty called police to help, when he became acutely aggressive on being discovered.

His name is Michael and he is handcuffed behind his back, violently resisting the police who can only try to restrain him on the floor as he refuses to stand up. Michael is yelling profanities and refusing any attempts to calm him verbally.

You don't know Michael at all but he is a local.

What do you do now?

Close Replies (4)

Copy Edit Delete

Reply to dr Minh Le Cong

Posts: 4
KATHERINE
NT

Jasmine wrote:

posted 19-04-2017 22:13

We need to gain control of the situation:

- Environment: make sure there are no other patients in the clinic, and delegate one of the health workers or nurses to clear them out or deal with them quickly
- Patient: find someone senior in the community who might be able to help us verbally de-escalate the situation and talk to him, ie an older uncle or grandfather
- if he needs an interpreter, find the appropriate person in community who can help with this - the health workers will be the best local knowledge for this
- Personnel: make sure you and the staff are safe, and that he doesn't have any weapons
- make sure the patient is safe, and that the Police aren't being overly aggressive or forceful in handling or restraining him

Case 014 - Facial Injury with difficult airway management

Case Number: 014/2016
Date: 5 August 2016
Case Title: Facial Injury with difficult airway management
Facilitator: Dr Louis Peachey

Learning points

1. *Assessing the difficult airway*
2. *Performing a surgical airway*
3. *Alternatives to surgical airway*
4. *Attempted suicide as a cause of unusual trauma*

Case discussion summary:

You are called to the ED to assist a colleague.

The patient is a farmer who has presented by ambulance to the ED. He had been found by his adult son in the farm work-shed. The story given to your colleague was that the man fell forward onto the sharp corner of a Disc Plow Housing, which had spilt his jaw into two pieces (visible in the wound) and has torn upward to the nose.

The patient is conscious and is still able to communicate by nodding and shaking of the head. Your colleague believes that given the degree of trauma, standard intubation would be difficult, and is preparing equipment to an emergency crico-thyroidotomy.

Important points raised in this case:

- Consider other airway options before immediately proceeding to a surgical airway in the conscious patient maintaining his own airway
- Beware of taking patient with potentially compromised airway to Xray department/CT scanner - but lateral portable Xray of the neck in the ED may provide useful information
- Ensure all relevant equipment is available, checked and staff briefed on roles in case it is necessary to proceed to surgical airway
- LMA may not be an applicable rescue technique due to anatomical distortion so be prepared to proceed to surgical airway
- Good inspection of the wound may help clarify potential severity of injury or reveal more intact anatomy than originally thought allowing standard ETT insertion.
- If necessary to do a surgical airway, the scalpel-finger-bougie (or just scalpel-finger) technique is now considered the preferred technique with readily available equipment rather than pre-packaged commercial kits that may be unfamiliar.
- Size 6 will ETT is considered “standard” but a Size 5 cuffed tracheostomy tube is good if available.
- Consider an awake surgical airway or intubation with patient sitting up to help maintain patent airway.
- Pre-oxygenate that patient by whatever means possible to “buy time” to carry out the procedure/extend apnoea time
- Ketamine/Propofol is a good induction choice. Avoid muscle relaxants if possible in case like this until airway is secured.
- If airway security is required principally for transport (and highly likely in this case), consider waiting until other skilled help is available
- Be aware of the long term psychological/psychiatric/GP support that such a patient is likely to require and the impact this will have on family/community.

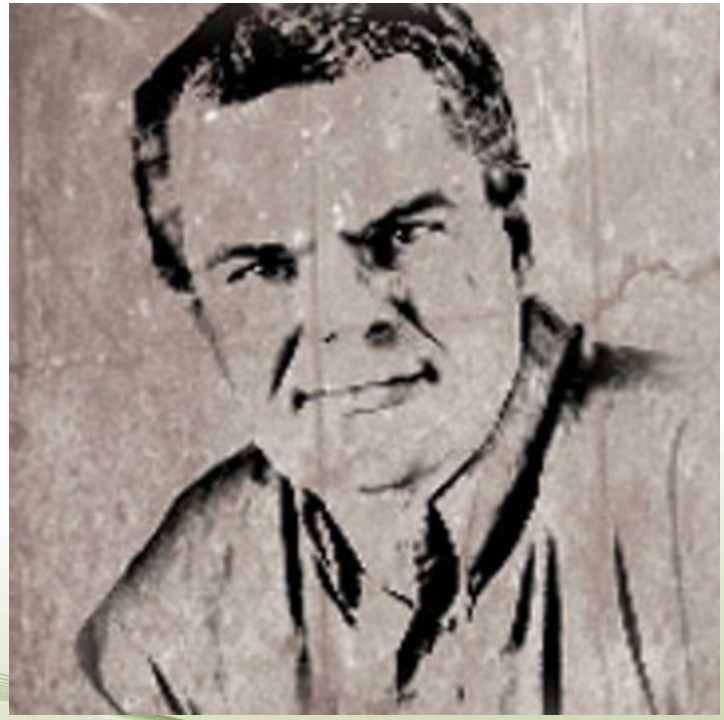
Further reading/resources:

1. *http://lifeinthefastlane.com/ccc/surgical-cricothyroidotomy/*
2. *http://emcrit.org/wee/modification-scalpel-finger-bougie-technique/*
3. *https://prehospitalmed.com/2015/04/19/3-actual-cric-videos-in-one-place-here/*

	Fields of Competency								
	Initial management	Time-critical & definitive emergency care	Common emergency procedures	Ongoing management	Uncommon but serious conditions	Transfer / transportation	Utilisation of available resources	Communication	Leadership and teamwork
Integrated Domains	**1,3,7**	**3,7**	**3**	**1,2**	**1,2**	**3**	**6**	**all**	**1,2,3,6**
Clinical Content Areas									
Airway emergencies	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)
Respiratory emergencies	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)		view case(s)	view case(s)	view case(s)
Anaesthesia and analgesia	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)
Circulatory emergencies	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)
Other causes of shock	view case(s)	view case(s)		view case(s)	view case(s)		view case(s)	view case(s)	
Neurological emergencies	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)
Psychiatric emergencies	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)		view case(s)	view case(s)	view case(s)
Musculo-skeletal emergencies	view case(s)	view case(s)	view case(s)		view case(s)	view case(s)		view case(s)	view case(s)
Soft tissue emergencies and burns									
ENT, Dental and maxillofacial emergencies	view case(s)	view case(s)	view case(s)		view case(s)	view case(s)			view case(s)
Abdominal and genito-urinary emergencies	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)		
Non-Clinical Content Areas									
Forensic medicine and legal issues	view case(s)	view case(s)	view case(s)					view case(s)	
Retrieval and special transport	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)
Handover to (or from) retrieval services				view case(s)		view case(s)	view case(s)	view case(s)	
Imaging and laboratory investigations	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	
Point of care pathology	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	
Emergency department management	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)	view case(s)
Preparing for and managing a multi-casualty disaster	view case(s)	view case(s)	view case(s)			view case(s)	view case(s)	view case(s)	view case(s)
Consultation via interpreter services									
Participate in interagency meeting									
Provide formal education sessions for other clinical staff	view case(s)	view case(s)			view case(s)		view case(s)		view case(s)

Now to the Brains behind the scene and some statistics

Lex Lucas



Participation since Feb 2016

- Enrolments – over 600
- Over 1000 messages posted
- Over 9000 messages viewed
- between 3000 and 5000 hits per month
- MCQ quiz for revision and PDP points

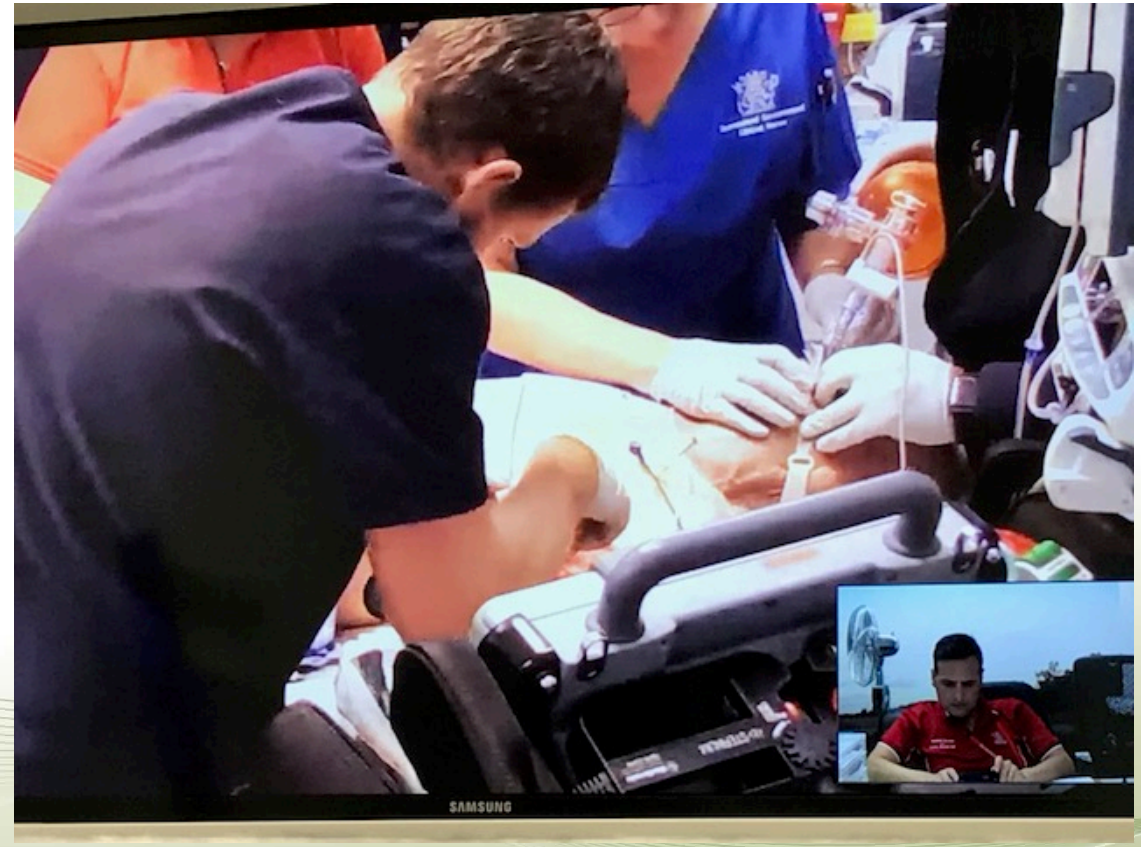
How we come up with cases?

Frank started to get a funny feeling that his doctor was a quack.

End of life

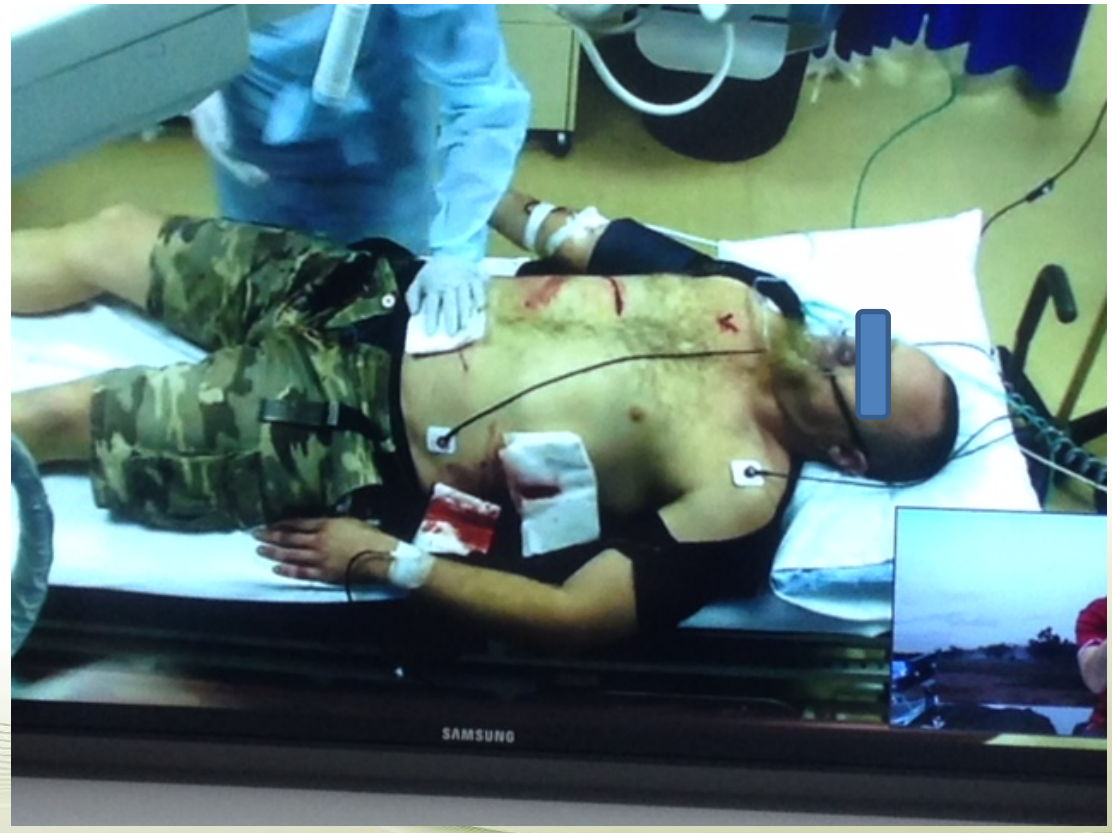
MBA with Respiratory distress

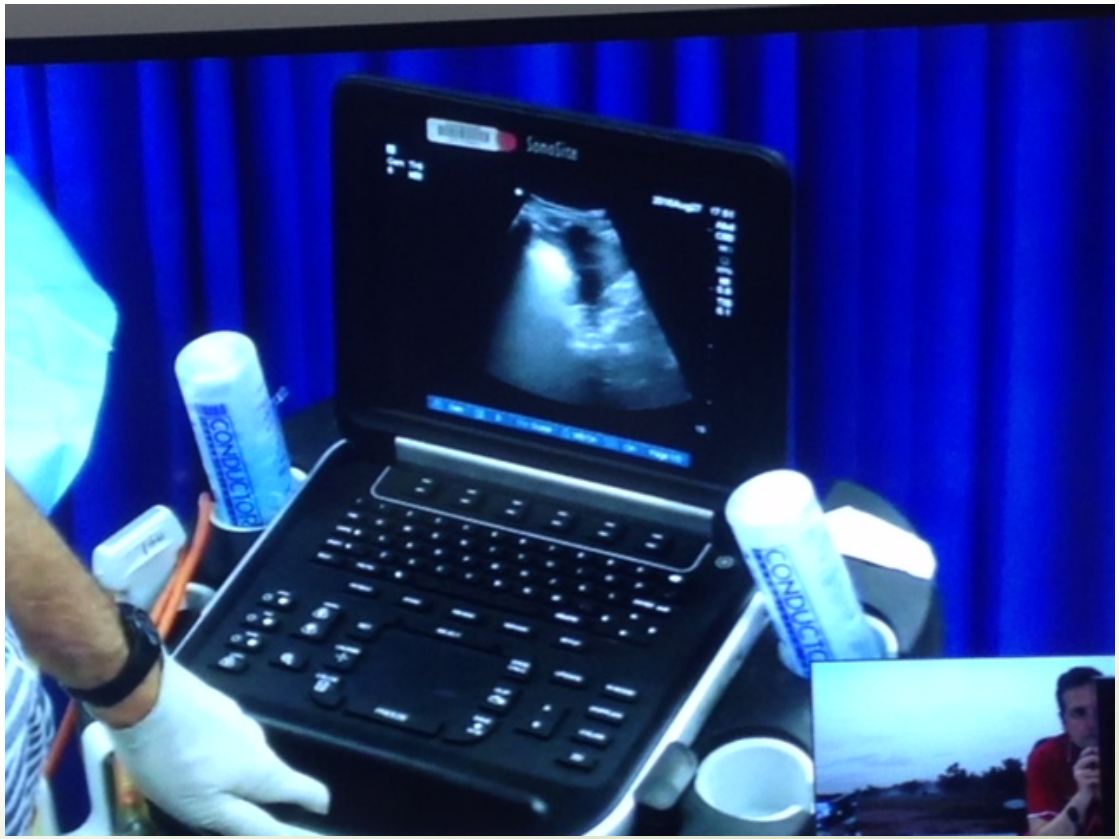
To intubate or not to intubate



MCA…when to intubate

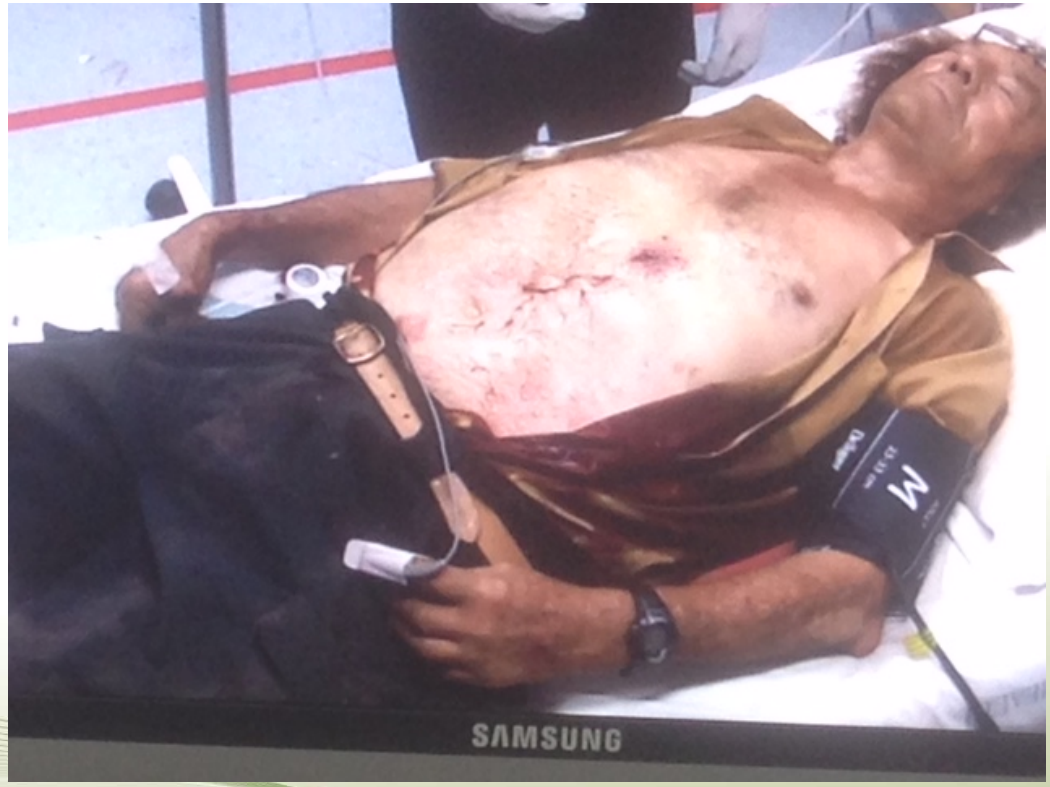
Stab wound post assult

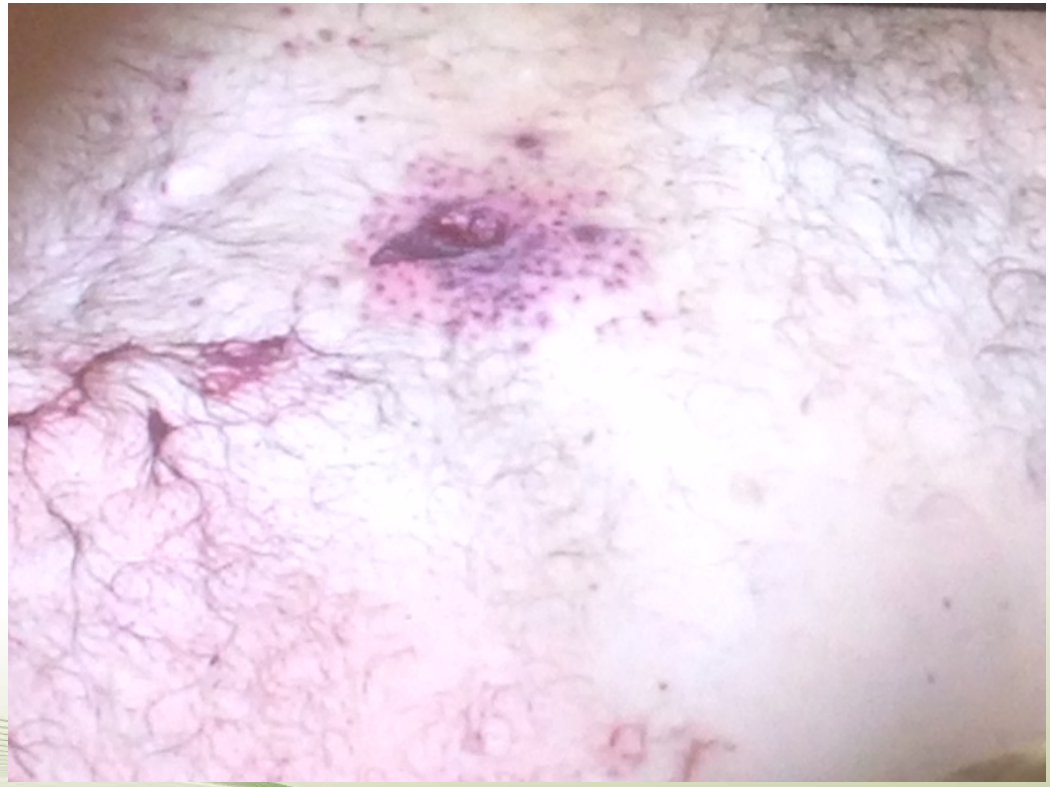




In February 28, 2000, a man from Houston, Texas died after attempting to play Russian roulette with a semi-automatic pistol. The man was apparently unaware that semi-automatic pistols automatically insert a cartridge into the firing chamber when the gun is cocked. He was posthumously awarded a Darwin Award

AND THE DARWIN AWARD WINNER GOES TO……





Challenges

- Getting more passive observers to be active participants
- No substitute for practical “hands on” experience.
- Too much focus on the “good outcome” cases?
- Time consuming; need more modurators
- Useful resource in preparing for Advanced Skills exams?

Conclusion

- Popular discussion forum for students, residents/registrars, and experienced rural doctors.
- “Real life” EM cases presented by experienced rural doctors.
- Focus on challenges of delivering high quality care in the rural environment.
- Further follow-up to determine usefulness in clinical practice and exam preparation.
- If anyone is interested in posting a case please come and see me or email me @ billnimo@gmail.com