UKP&I

Red Square Medical
Maritime Medical Solutions

CREW HEALTH ADVICE

Crew Health Advice: Internal Injuries and Fractured Ribs

Our recent lessons learnt video detailed a mooring deck incident, where the second officer suffered fractured ribs and internal injuries as a result of a mooring line parting under tension. The following information may help with identifying the injuries that the second officer sustained and what can be done onboard to help whilst awaiting further assistance.

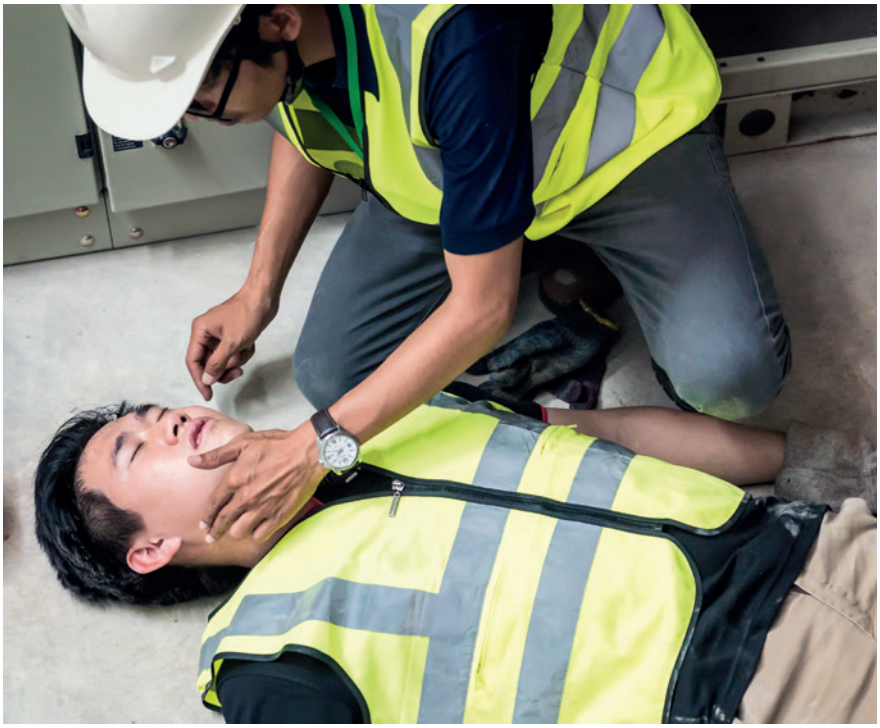
No matter what injury a crew member has sustained, it is important to carry out an assessment in exactly the same way for all incidents, using the DRSABCDE model taught in STCW, which stands for:

D – Danger
R – Response
S – Shout for Help
A – Airway
B – Breathing
C – Circulation
D – Disability
E – Expose

Due to the nature of this incident, the first issue to consider is the 'danger element'. Mooring decks are inherently dangerous places and it is therefore imperative to ensure that it is safe to approach the casualty.

From the injuries sustained, the second officer would have been in pain from the broken ribs and suffering from shock due to the internal injuries.

Broken ribs can be a complicated injury as they have potential to damage the lungs underneath, so a thorough breathing assessment is essential.



Carry out the RV FLAPS WET checks:

R – Rate. How fast is their breathing? Normal is 12-20 breaths per minute. Put a Pulse Oximeter on to a finger to look for the casualties oxygen levels. Aim for above 95%.

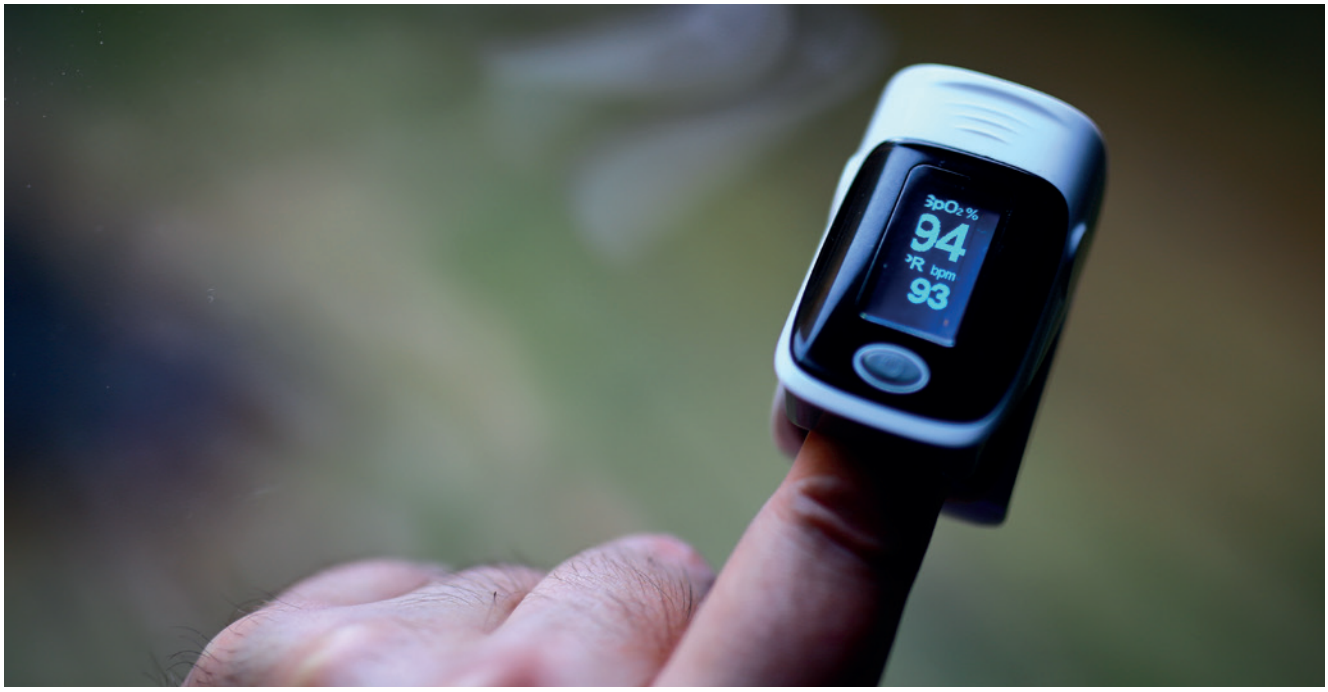
V – Volume. Is it deep or shallow?

F – Feel. Are both sides of the chest wall rising evenly. Is there any tenderness around the chest wall? Can you feel any bony crepitus (a grinding type sensation)?

L – Look. Are there any obvious injuries? Are their nostrils flaring or are they using their accessory muscles to try and breath? How is their pallor?

A – Auscultation. This is listening. Stethoscopes come in many different varieties and often, many stethoscopes on board are low quality, making it hard to hear. Whilst you don't need to invest huge amounts of money in cardiac stethoscopes, approximately GPB 20 to GBP 25 should be sufficient for a well-made option. It can also be difficult to hear due to the constant background noise on a ship, therefore it is important not to panic if you can't hear breath sounds. There are other tools available that can help with the assessment.

P – Press. Feel all over the chest wall. You are feeling for things that you may have missed first time round.



When doing a breathing assessment it is important to remember how quickly things can change so repetition is a good thing.

S – Search. This is looking for evidence of something hidden. Perhaps the injury is on the side that they are lying on. Don't forget to be careful of any other suspected injuries that may be exacerbated by movement. Think pelvis and spine.

W – Wounds. Are there any wounds on the neck?

E – Emphysema (surgical). This feels a bit like bubble wrap underneath the skin of the neck and chest.

T – Tracheal deviation. Normally the trachea (windpipe) should be centrally aligned through the neck down to the chest. The easiest way to check this is by feeling it and if it starts to slant off towards one side then you have identified Tracheal Deviation.

If everything appears well, and it is just the pain of the broken ribs causing distress, keep in mind that at some point in the very near future pain relief medication will be required. A doctor should be contacted to ensure the right medication and dose is prescribed. If able, ensure you ask the casualty about allergies and other medication they may be taking to avoid any issues with reactions. Do not be tempted to splint the ribs using bandages as this will restrict the breathing movement even more and one of the main complications during recovery from broken ribs is Pneumonia. This stems from people not taking deep breaths due to the pain and splinting only compounds that effect.

The internal injuries could encompass multiple systems and although we may not be able to ascertain which systems are involved a thorough check of the circulation should help us identify how severe the injuries are. The following checks should be carried out:

Pulse – Check the carotid (neck). You are feeling for rate, rhythm and regularity. Then compare it with the Radial (wrist).

Capillary refill – Squeeze the nail bed for 3 seconds to drain the blood out of the capillaries, then let go and the colour should return to normal within 2 seconds. Anything slower or no return of colour can indicate a circulatory problem. Repeat on all limb extremities.

Blood Pressure – Your body has the ability to compensate really well for blood loss initially so the blood pressure may seem ok when you check it for the first time. The key to working out the severity of internal injuries is to monitor the vital signs regularly and keep a note of them. You will soon notice a trend. If the blood pressure starts dropping down and the pulse starts to climb, that is not a good sign and means that they are bleeding somewhere and the body is losing its ability to compensate.

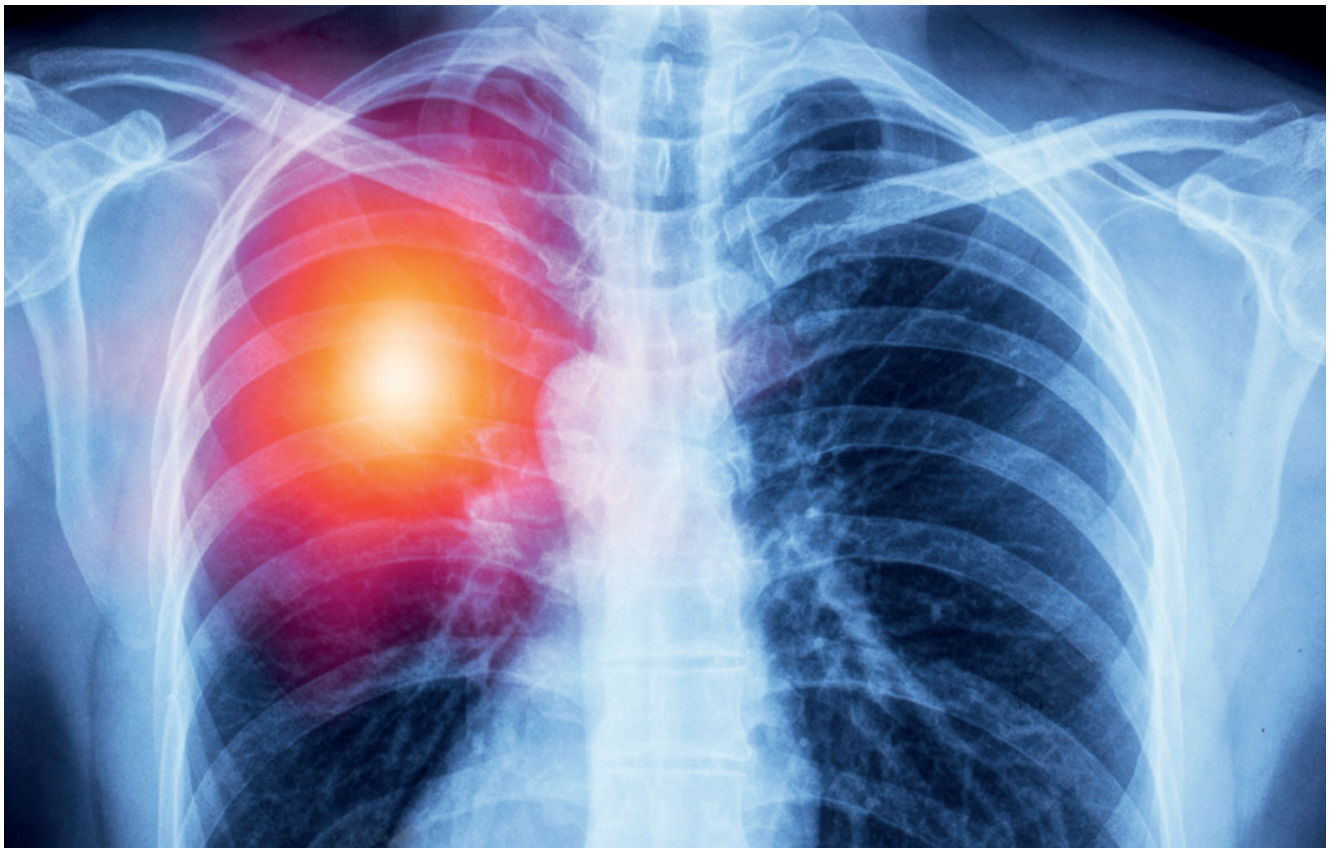
Look – Is the casualty pale? Are they shivering or shaking?

Expose – Uncover the abdomen and look for obvious injuries, swelling, bruising.

Feel – Gently palpate all areas of the abdomen looking out for signs of pain or tenderness. Don't forget to check around the back as well.

A fractured pelvis or fractured femurs (thigh bones) can also bleed significantly and are classified as internal injuries so make sure you consider these as part of the examination.

Unfortunately, the medical assistance available onboard a ship for internal injuries is limited, and therefore require urgent evacuations. As this particular incident occurred whilst alongside, the



emergency services will have been called and the crew member should be kept comfortable until further help arrives.

A summary of recommended actions:

- Once the assessment has been carried out make sure that you continuously recheck the casualty from top to bottom and record their vital signs.
- Treat any injuries that you are able to.
- Do not move the injured crew member unless it is absolutely necessary. Every movement could cause further damage.
- Insulate the crew member from the deck, as heat can be lost through steel decks. It will also protect them from the elements. The aim is to prevent heat loss but avoid over-heating.
- Stay with them and provide reassurance and a calm presence. Keep talking to them and engage them in conversation. This helps you monitor their level of consciousness and whether or not they are confused.
- Prepare a good written handover for the emergency services detailing everything that you know about the incident and the injuries sustained along with what you have done to treat them so far. One such standardised handover tool called ATMIST AMPLE can be found inside the front cover of the 23rd Edition of the Ships Captains Medical Guide.

A – Age and name of casualty.

T – Time of incident.

M – Mechanism of injury. What happened.

I – Injuries found or suspected.

S – Signs and symptoms to include a full set of vital signs.

T – Treatment given. This should include any medication given along with the dose and the time at which it was given.

A – Allergies.

M – Medication taken normally. Such as blood pressure pills or asthma inhalers for example.

P – Previous Medical History.

L – Last oral intake. When did they last eat or drink anything.

E – Events leading up to the incident.

Once your casualty has been successfully handed over to the Emergency Services, record the incident in the official log, file a copy of your report and restock your medical kit. Discuss the incident with crew to identify what happened, and what action can be taken to ensure it doesn't happen again.

This advice was compiled in collaboration with Red Square Medical, who offer a full range of maritime medical services, from training and consultancy services, right through to mass casualty incident planning and training.

www.redsquaremedical.com

CREW HEALTH ADVICE

The Club was the first to launch a crew health scheme in 1996 due to increasing crew illness claims and a lack of accountability of clinics. Since 1996, the Crew Health programme has become one of the Club's leading loss prevention initiatives. The aim of the programme is to reduce the volume and value of crew illness claims which are caused by a pre-existing illnesses or disease. These underlying conditions often impact on the crew member's fitness for service and can endanger not only the health of the seafarer but also the onboard safety of other crew.

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Sophia joined Thomas Miller in 1992 and from 1994 worked as a claims handler dealing mainly with French and Spanish Members. In 2004, Sophia became the Crew Health Programme Director. Sophia has undertaken a large number of clinic audits, implemented the standard medical form and clinic guidelines. She has also lead the scheme through the largest period of growth and development with a doubling of approved clinic facilities and a four fold member increase. Sophia is a Director of Thomas Miller & Co. Ltd.

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Stuart joined Thomas Miller in 1998 as a claims trainee for UK P&I Club's Greek Members. In April 2005 Stuart joined Crew Health as the Team Administrator. Stuart is responsible for co-ordination of Member entries and administration for the clinic approval process.

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Saidul Alom joined Crew Health from the European Region Service Team in 2004. Saidul provides administrative support to the Crew Health programme and is responsible for liaison with the approved clinics on financial billing matters and ensuring prompt payment of all clinic fees.