

Fremantle-Bali 2020

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First aid kit vs Medical kit

- First aid: no medications
- Medical kit:
 - Medicines
 - Over the counter
 - prescription only
 - Stored correctly

General principle

- prescription medicine= doctor opinion

Role of Medic

- Medic:
 - Know where items are in the medical kit
 - List crew health problems
 - Check medicines : full inhalers, epi-pens
 - Know if any allergies
 - Document medical incident: as per regulations

General

- Injury/illness charts RFDS rather than hospital
- Describe location
- Storage: removal of opiates from yacht
- Storage: temperature- take out beer put drugs in the fridge increases shelf life
- Equivalent medications
- Pro rata increase
- Ask for long expiration date

Medicines

- Indicated treatment
- Contra-indications: allergies
- How do you give it
- Dose do you give
- Side effects

Allergies

- Are you allergic to anything?
- Female : Pregnant?

Administration

- Oral
- Rectal
- Intra-muscular (IM)
- Intra-venous (IV)

Oral

Pro

- Easy
- Even if fasting

• Con

- Vomiting
- Onset 40+ minutes: **GIVE EARLY**

Rectal

- Pro
 - Quicker onset to oral: 10-15 minutes
 - Can't be vomited
 - Self administered
- Con
 - Ick factor
 - Storage: designed to melt

Intra-Muscular

- Pro:
 - Quicker onset 5-10 minutes
 - Only route of administration for some medications
- Con:
 - variable onset
 - Not titratable
 - Skill to learn
 - Sharps disposal
 - Safety: Blood-borne viruses

Intra-venous

- Pro: quicker action/titratable
- Con: specialist skills and equipment

Medications

What is in the kit?

- Familiarize yourself with the medical kit
- When in doubt: Read info leaflet
- Day kit: extra simple painkillers, antacid, anti-histamine, sea-sickness tablets , bandaids

Painkillers: Mild

- Paracetamol 500mg
 - 2 tablets, 4 x day
 - 40 tablets
 - 5 days supply
- Ibuprofen 200mg
 - 2 tablets, 3 x day
 - 40 tablets
 - > 5 days supply

Painkillers: Moderate to severe

- Codeine/paracetamol mixes
- 500mg paracetamol:
 - 30mg codeine (panadeine/codapaine forte)
- S/E: constipation
- Dose: 2 tablets, 4x day
- 2 and half days supply

Painkillers: very severe pain

- Oxycodone (endone) 5mg (20) oral
- Oxycodone 30mg suppositories (Prolodone) (10)
- Morphine 10 mg/ml: IM/IV

Opioids : Side effects

- Nausea/vomiting
- Drowsiness
- Dizziness
- Dose related respiratory depression
- coma

Dose

- Titrate to pain and sedation
- Assume healthy person, normal weight
- Alter if elderly/low weight
- Can give more – but can't take it away

Oxycodone 5mg

- Oral opioid
- Reasonable: 5mg to 10mg initially
- 5-15mg every 4-6 hours

Prolodone 30 mg

- 30mg every 6-8 hours
- Oral/IM preferable

Morphine

- Dose: 10mg/1ml
- IM 5-10mg depending on severity
- Repeat: 2 hourly

Naloxone

- 400mcg vial
- Opioid antagonist: reversal of overdose
- Initially 400mcg
- Should improve within 1 minute
- Can repeat
- Half life 1 hour < half life of opioids
- Observe 2-3 hours afterwards

Cardiac Emergencies

- Aspirin
- Nitrolingual spray (anginine)
 - Indications cardiac chest pain
 - S/E lowers Blood pressure/headache
- Tablets better: shelf life/can be spat out if S/E
- +/- morphine d/w Dr

Eyes

- Chloramphenicol Ointment:
 - no fridgeration
 - corneal abrasions/graze
 - Bacterial eye infections
 - ointment briefly blur vision

 - Can be used for other minor skin infecti

Antibiotics: each is 1 course

- Ciprofloxacin: 500mg (14)
- Cephalexin 500mg (20)
- Extra: Augmentin Duo
- Extra: Doxycycline

Ciprofloxacin

- Good coverage:
skin/bone/respiratory/gastrointestinal/urinary/gonorrhoea/anthrax
- S/E: colitis, tendonitis, photosensitivity

Cephalexin (Keflex)

- Not if anaphylactic to penicillin (tongue swelling) ok if allergic rash
- Indicated for chest/skin/urinary infections
- 500mg, 6 hourly

Augmentin-duo forte

- Not for penicillin allergy
- Broad spectrum
- 1 tablet twice daily

Doxycycline

- Chest, skin and coral cut infections
- Suitable for penicillin allergic
- 200mg initially then 100mg once daily
- Photosensitivity!

Clotrimazole cream

- Anti-fungal
 - Athletes foot
 - Jock' s itch

For diarrhoea

- Loperamide (imodium) 2mg pkt (12)
- Problems:
 - increased duration illness
 - misdiagnosis

For dehydration

- Gastrolyte
- Prevention better
 - Avoid heat stroke
 - Remain hydrated
 - Treat sea-sickness early
 - Hygiene: Wash your hands/use hand gels

Sea sickness

- Avomine or travacalm: promethazine theoclate (better taken before)
- Prochlorperazine suppositories (stemetil)
- Others:
 - scopolamine patches (UK)
 - Promethazine hydrochloride (phenergan) (sedation)
 - Ondansetron wafers

Allergy

- Promethazine 25mg (25) Sedating antihistamine
 - Anti-emetic
 - Consider 10mg and increase amount pro rata
- Adrenaline injections 1:1000 (5)
 - 500mcg (half a vial) IM can be repeated if required

Extras

- Sofradex ear drops: swimmers ears
- Viscotears eye gel
- Ondansetron wafers: anti-nausea
- Bactroban/mupiricin ointment: antibiotic
- Loratidine (clarytin): non sedating anti-histamine
- Steroid cream: dermatitis
- Kenacomb ointment

Injury Managment

Head injuries

- Common on boats
- Minor-moderate-severe
- More than minor: evacuate them
- On anti-coagulants = CT scan

Minor head injury

- Not knocked out
- Not amnestic
- Not vomiting
- No seizure
- No severe headache
- Alert and orientated

Sprains

- Strapping tape useful
- Ankles: uneven surface gives support > tubigrip/bandage
- Check reaction to tape
- Can use fixomull underneath

Fractures

- Likely sites:

- Forearm
- Clavicle (collarbone)
- Ankle
- Ribs

Significant height or force: pelvis/femur/humerus

Treatment

- Pain relief
- Assessment of complications
- Removal of rings
- Elevation

Pain Relief

- Pain tablets/injection
- Immobilization
 - Inflatable splints
 - Splinting using boat equipment

Assessment of complications: fractures & wounds

- Blood vessel:
 - feel the pulse distally
 - Capillary return: press for 5 seconds, brisk < 2 secs return of colour
- Nerve: sensation
- Tendon: movement
- Any compromise: emergency treatment



Open fracture: bone through skin

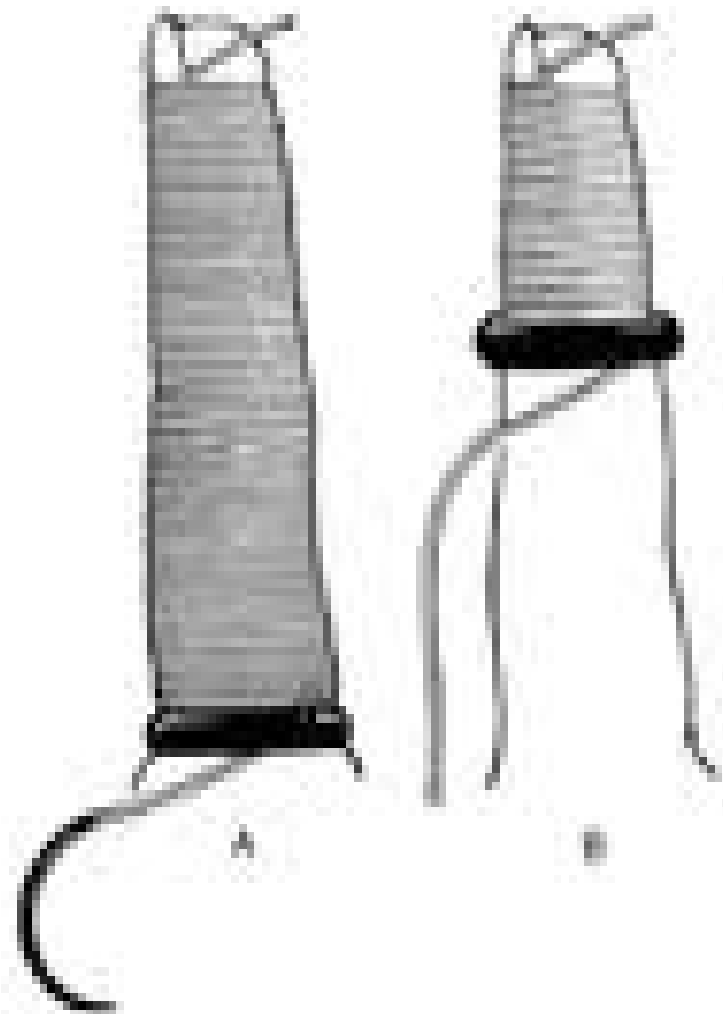
- Antibiotics
- Betadine/saline soaked gauze dressing
- emergency treatment
- Risks: bone infection

Compartment syndrome

- Due to secondary swelling
- Symptoms: Increased pain, tingling, cold
- Later: loss of pulse
- Elevation
- Emergency treatment
- Permanent impairment/disability

Removal of rings

- Best early before any swelling
- Washing up liquid/grease
- String
- Ring cutters (or rig cutters!)



elevation

- 48hrs
- Arm above heart
- Ankle above hip
- Reduces swelling
- Reduces pain
- Avoids theatre delay
- Reduces risk of compartment syndrome

Treatment of lacerations

- Most important: clean
 - The solution to pollution is dilution
- Water/saline/not neat betadine
- Assessment of complications:
 - include stop bleeding, wound inspection
- Presence of foreign body
 - Remove if visible and easy
 - If felt likely present

Why close a wound?

- Heals more quickly
- Finer scar
- Primary/straight away closure: using something at the time to close the wound
- Secondary/delayed closure

Do nothing!

- Not a simple laceration
- Small <2cm, superficial wounds particularly hands
- Close only if clean and un-infected
- Time frame:
 - <12 hrs, extend to 19 hours
 - Face up to 36 hours from injury

Still clean and dress wound:

non adherant/gauze/fixomull or bandage

Complicated wounds

- Require clean +++
- Betadine/saline soaked gauze dressing
- Antibiotics
- Emergency treatment

Treat: Simple lacerations

- Superficial
- No complications
- No access to medical care within time frame

Closure options

- Glue
- Steri-strips
- Combination
- Staple
- Suture

Glue

- Topical sterile skin adhesive
- Rapid/Relatively painless
- Barrier function
- Reserved for low tension wounds, needs to be clean and dry
- Avoid eyes!
- Treatment of in-advertant gluing: keep parts moving
- Relatively Expensive/script only
- Shower/wash ok





Steri-strips

- Minimal tension wounds
- Low risk of infection
- Clean, dry, hair and grease free skin
 - Can cut hair if needed, never eyebrows
- Mobile area: likely lift off
- Come off when wet
- Fixomull steri-strips: clean not sterile ok

An ode to fixomull

- Stays on when wet
- Remove with oil
- Unstick with sunscreen
- Also: Fabric plasters/bandaids

Combination glue/steri-strips

- Good for moderate tension wounds

Stapler

- Not as meticulous as sutures
- Less painful than sutures
- Easy
- Great for scalp lacerations
- Do not need to shave hair
- Not face/hands
- Alternative: If hair long enough: hair knots and glue









sutures

- Deep or irregular lacerations
- Lacerations on hands/feet and over joints
- Not difficult but learned skill
- More equipment
- Local anaesthetic infiltration

Removal

- Stapler: removal device
- Sutures: cut and pull
- Face 5 days
- Rest 10 days
- Large joints <14 days

Follow up

- Get medical advice where able
- Wound review on return

Equipment

- Instruments:
 - Stapling kit/wound glue
 - Medical equipment supplier
 - Price: Stapler: \$TBC inc GST
Glue: \$24.70 inc GST
- Please put name/yacht/quantities

IM injections

- Check correct medication: if able 2 person
- Check expiry
- Wash hands/use hand-gel: gloves
- Open vial
- Drawing it up
- Administration
- Disposal: needlestick

IM injections

- Clean: alco wipe/equivalent
- Site:
 - Buttock: upper outer quadrant
 - Arm: upper outer
 - **Thigh outer middle third: preferable**

Hygiene

- Hygiene
 - Personal
 - Boat
 - Soap & water, Alcohol hand gel/sanitiser

Questions?

Practical Session: Injections/Stapler



Happy Sailing