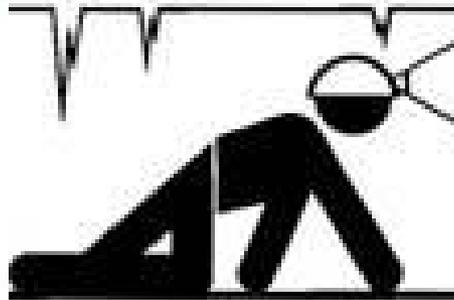


# **1st Aid: Caving Style**



**By Dr Cat  
And anyone else who wants  
to 'pitch' in**

# Scenario

- Dave, aged 22, no known medical problems (apart from being a bit special in the head).
- He was bringing up the rear on your trip and you all hear a massive thump at the bottom of the pitch you just came down, followed by silence.
- “FFS DAVE!!!!!!”

# Initial Assessment

- Aim: Stabilise, identify immediately life-threatening problems.
- A = Airway
- B = Breathing
- C = Circulation
- D = Disability
- E = Exposure/Environment

# ABC

- A: Talking/mumbling? If not:
  - Torch & look
  - Chin lift/jaw thrust
- B: Breathing?
  - Feel on cheek while looking at chest for rise & fall.
- C: Pulses? Obvious bleeding?
  - Radial- Thumb side, between bony bit and tendon
  - Carotid- between long muscle & lumpy

# DE

- D:
  - AVPU scale: Alert? Responds to: Voice? Pain? Unresponsive?
  - Any neck/back pain?
- E:
  - Safe environment for further examination?
  - Pain anywhere(grope thoroughly-especially chest/abdomen/upper legs)? bleeding?
  - Cold?

# Spinal injury

- Suspect if any of:
  - High impact injury/unconscious patient
  - Head/back contact
  - back/neck pain
- DO NOT MOVE IF AT ALL POSSIBLE
- C spine support
- Avoid chin lift- use jaw thrust if airway obstruction
- Log roll to examine back/ put on

# Bleeding

- Elevate bleeding area if possible
- Compression: manual/bandage/duct tape
- Body areas to pay special attention to- lots of blood can be lost to internally:
  - Abdomen & pelvis
  - Upper legs (broken femurs)

# Hypothermia

- Keep off rock if possible- tackle bags, wellies etc.
- Remove wet clothing if possible
- Foil blanket
- Huddle
- Bothy if you have one
- Remember the rest of your group!

# Fractures

- Types

- Open
- Closed

- Assessment:

- Circulation: Limb warm & pink?
- Nerves: can feel things?  
Can move fingers/toes?

- Management

- analgesia
- Immobilise- sam splint, bandage, duct tape

Open= break in skin over fracture.

- TRY TO KEEP AS CLEAN AS POSS!
- Wash with sterile saline if available
- If you have sterile dressings- apply without touching any parts in contact with wound (e.g. open dressings directly onto wound touching packaging only if poss).

# 2ry Assessment

- Aim: Discover the problem/fix non-life-threatening problems.
- A: keep them talking if alert
- B: Resp rate
- C: Pulse rate, central capillary refill
- D: pupils reacting to light? Orientated? Memory loss? Movement/sensation in all limbs?
- E: Splints & dressing smaller wounds, ensure remains warm
- F: FOOD. Give food/drink/painkillers if alert enough to do so themselves. Encourage drinking +++ especially if large amounts/ongoing bleeding

# Vital signs assessment- B

- Resp rate- count how many breaths in 30secs and double. Do this without telling the casualty (can affect it if they know as have conscious control)
  - Normal: 12-18 breaths/min
  - Too slow: they're properly screwed/have had too much opiate-based painkiller (in terms of likelihood of occurrence morphine > tramadol- not possible with codeine)
  - Too fast- a measure of how unwell they are. Affected by lots of things (cold/pain/dehydration etc.)

# Vital signs assessment- C

- Pulse rate-
  - Count pulse for 15secs then quadruple.
  - Normally easiest from radial, if not use carotid (if you have to do this it's a sign they're screwed/dehydrated, or that you're crap at feeling pulses. Assume the former.)
- Capillary refill-
  - Measure of how hydrated someone is
  - Press thumb on sternum for 5s until skin blanches (goes white) underneath
  - Time takes to go pink in seconds- should be 2 or less
  - If  $>2$  implies casualty is dehydrated- encourage drinking +++ if conscious. Look extra hard for signs blood loss.

# D&E (inc. conscious state)

## 2ry assessment

- Pupils (important in head injury)
  - assess using backup torch if contract in response to light.
  - Cover one eye and look at the other- as brief as poss and on the lowest setting you have!
- Orientation- place, person & time (ish)
- Memory loss- of breakfast, time prior to incident, of actual incident
- Movement/sensation- check all 4 limbs.
- Frisk more thoroughly, look for bruising/funny bone angles/pain on as much of them as you can access without risking them getting too cold.

# Incident Reporting- SBAR

- Situation- name, age & sex of casualty & mechanism of injury
- Background- any known medical problems/allergies
- Assessment- any injuries/issues found on assessment, current vital signs (pulse rate etc.) & significant +ve/-ve findings.
- Recommendations- anything you have already done/what the patient needs.
- If you are sending someone out to contact cave rescue it is probably worth writing this info down to give to them to take out to enable the CRO to

# Preparation

- Know any medical problems before you go, especially:
  - Asthma- should always carry a blue inhaler when caving.
  - Diabetes- ensure have extra snacks, glucogel/jam if poss (gel/jam- can rub on inner cheek and absorb if unconscious- HIGH GLUCOSE NEVER A PROBLEM IN ACUTE SETTING- ALWAYS GIVE IF KNOWN DIABETIC.
  - Epilepsy- how long since last fit, how regular etc (?safe to cave at all). Avoid belaying Etc.
- Always carry:
  - Duct tape, foil blanket, emergency food ?mini

# Suggested Mini 1<sup>st</sup> aid kit

- Sterile saline
- Antiseptic wipes
- Steri strips
- Sterile dressing pads
- Bandages
- Duct tape
- Pencil/pen & waterproof paper
- Tampon
- Safety Pin (for slings)
- Snoopy loops

Paracetamol

Ibuprofen

?Plasters

Other stuff:

- Duct tape
- Blanket
- Food

# Other useful stuff if more space

- Sam splints
- Ibuprofen/diclofenac (voltarol) gel

Rehydration salts

Glucogel/jam

- Fun drugs
  - Tramadol
  - Codeine/cocodamol (latter= codeine+paracetamol)

Waterproof marker- can write info on casualty.

Spare warm stuff e.g. hat.

# Drugs info

- All meds
  - check for allergy before giving
  - Beware children- different doses
  - Don't use 2 from the same class at once- leads to overdose
- Analgesics (painkillers)
  - Paracetamol
  - Anti-inflammatories- ibuprofen, diclofenac
  - Simple opiates (morphine-related)- codeine, tramadol

# Paracetamol

- Max dose:
  - 1g (2x 500mg tabs)
  - 4x/day, seaparated by >4hours/dose
- Cautions:
  - Overdose- dangerous in ANYTHING above the recommended dose. (TAKE CARE: cocodamol already contains paracetamol do not use both or you will overdose!)
- Other info
  - Reduces temperature
  - Synergistic effect with other painkillers so always give in some form!

# Ibuprofen/Diclofenac

- Max dose:
  - Ibuprofen: 400mg (comes in 200mg or 400mg tabs)
  - Diclofenac (voltarol): 50mg (usually comes in 25mg tabs)
  - Both: max 3x/day, separated by >4hours.
- Cautions:
  - Asthma- triggers attack in some. Only give if had before with no issues.
  - Gut ulcers/indigestion- can worsen. Unlikely a massive problem from one dose unless had bleeding from gut in past.
- Other info:
  - Good antiinflammatory effect- good for sprains/strains/anything swollen- reduces swelling as well as pain
  - Diclofenac > Ibuprofen- in terms of effects and side

# Codeine/Tramadol

- Max dose:
  - Codeine: 60mg, (usually comes in 8mg (over the counter) or 30mg) Cocodamol= codeine plus paracetamol.
  - Tramadol: 100mg (usually 50mg tabs)
  - Both: up to 4x/day, separated by >4hrs.
- Cautions:
  - Tramadol can have some odd side effects- people can feel either really ill or go a bit loopy. It also works far better in some people than others. It's useful to know how you respond before you use it if you do carry any.
- Other info-
  - tramadol technically stronger than codeine (for those who respond well).
  - No antiinflammatory effect

# Summary

- Primary assessment: ABCDE-  
Stabilise
- Secondary assessment: more thorough ABCDE. gather more information to aid reporting of injury & identify more minor stuff.
- SBAR incident reporting
- PREPARE before your trip- know your group & carry appropriate stuff.
- Avoid giving drugs you are unfamiliar

**ANY OTHER  
IDEAS/QUESTIONS/ADDITI  
ONS?**