BRITISH EASTERN KISHTWAR EXPEDITION 1992

MEDICAL REPORT

Summary

Ten expedition members, eight men and two women, with an age range of 20 years to 52 years visited Eastern Kishtwar, India, between 19th August and 30th September 1992 with the intention of trekking and climbing some prebooked peaks in the area.

One member of the group suffered a compound fracture of the tibia and fibula when hit by a falling rock, whilst climbing at approximately 5700m on the 3rd September. It took 5½ days to recover him to base camp at 4000m, where it was possible to clean and dress the wound, and in that time he sustained frostbite and developed gangrene. On the 9th September, an Indian army helicopter was able to evacuate him to hospital in Jammu. From there he was flown to Delhi for immediate treatment before a further flight back to the UK.

This report covers the events prior to the arrival of the helicopter.

Preparation

All the members were in good health and had extensive mountaineering experience. As a qualified nurse, Dawn Hatton was the medical officer for the expedition.

Everyone was asked to check their inoculation records and to arrange the necessary immunisations through their GP. They were advised to consult their local chemist for the correct anti-malarial regime for the area, and to have a checkup with the dentist. Suggestions were also given on what to include in personal first aid kits.

In addition, they were asked to supply the following information which was used to prepare medical notes for inclusion in the medical kits.

- blood group.
- known allergies.
- if they intended using iodine for water purification.
- if they intended to use Diamox to improve acclimatisation.
- if they had any operations or illnesses that might be relevant.
- a list of their immunisations when completed.
- if they held a first aid certificate.

Appendix A details the main references used to gain information about medical problems likely to be encountered, especially frostbite and high altitude sickness. and to get ideas for suitable drugs and equipment. Peter Steele's, MEDICAL HANDBOOK FOR MOUNTAINEERS was found especially useful and was taken for reference on the expedition.

A list of drugs likely to be needed was compiled and checked with the appropriate specialists and various drug companies were approached for sponsorship, as detailed in appendix B.

Since the expedition would divide into two groups for the first two weeks it was necessary to prepare two medical kits. Appendices C and D show the items included in the climbers and trekkers medical kits and appendix E shows dosage instructions for medications.

Drugs and lotions that could be bought directly from the chemist together with those that required a doctors prescription were purchased. One member of the group had a medical history of well controlled asthma and the necessary drugs to treat an asthmatic attack were obtained. The completed medical kits were put into two large plastic boxes and were sent to India with the rest of the freight.

MEDICAL INTERVENTIONS DURING THE EXPEDITION.

General

Most people suffered at some time and to differing extents with gastro-intestinal problems which resulted in diarrhoea, general malaise, and loss of appetite. This was generally self limiting and was treated with a variety of medications including imodium, dioralyte and fybogel.

When first at altitude, some members of the group experienced minor symptoms of altitude sickness (headache, nausea and anorexia) for which aspirin or paracetamol sufficed. Otherwise the expedition members remained healthy.

From time to time, especially during the trek, it was necessary to treat the porters for minor injuries including a burnt arm, sprained ankles, a lacerated knee and shin, and a boil behind the ear. This necessitated the use of more crepe bandages and dressings than originally anticipated, creating a shortage of bandages during the subsequent emergency.

Medications and treatment were occasionally requested by the local inhabitants and where it was appropriate these were given.

Details of main medical emergency

Six members of the expedition, Angus Atkinson, Jonathan Bamber, Dave Hatton, John Knifton, David Mortimer and Luke Steer, arrived at base camp (4000m) on 27th August, ascending 1750 metres in one day. As would be expected, the individuals acclimatised at different rates during the first week.

TUESDAY 1st September 1992

Jonathan Bamber and Angus Atkinson commenced an ascent of Tupendo I (5900m).

The other four returned to base camp after acclimatisation walks and reconnaissance, being less well acclimatised.

WEDNESDAY 2nd September 1992

Bad weather, snow on mountain prevented climbing and rain at base camp precluded any activity.

THURSDAY 3rd September 1992

Clear weather early, Jonathan and Angus resumed the climb, but at 10.30am Jonathan was hit by a dislodged rock, sustaining a broken left tibia and fibula. Initial action by Angus was to lower Jonathan about 100 metres to a bivouac site using climbing ropes. Jonathan remained conscious and was in great pain and suffering from shock as he was secured in as safe a place as was possible. There was some blood issuing from the wounded area, an improvised splint was made to immobilise the fracture but no attempt was made to examine it. He was protected with all available warm clothing and a Goretex bivi bag, and had a limited supply of food and drink when Angus left for assistance at 2pm. The weather had deteriorated by then to showers of snow on the mountain, and rain at base camp. Angus arrived at base camp at 8pm and alerted everyone so that a rescue could be planned.

FRIDAY 4th September 1992

The following actions were agreed.

David Mortimer and the liaison officer were to descend to the nearest police post at Atholi, one day away, so that a helicopter rescue could be requested. Three others, Angus, Luke Steer and Dave Hatton were to climb up towards Jonathan with as much equipment as was practicable. (Clothing, food, cooking equipment, climbing gear, analgesia and bandages. To save time the two who were the fittest/best acclimatised would climb roped together to Jonathan to effect the rescue. John Knifton planned to ferry more equipment up to a large boulder on the edge of the moraine (camp 1) at the foot of Tupendo 1.

The plans were followed and Angus and Luke climbed to within 120 meters of Jonathan on Tupendo 1 before making a bivouac for the night. Dave, who was the slowest of the three made a bivouac lower down on the mountain, before reaching the steeper rock. John also bivouacked alone at the camp 1 boulder.

There were light snow/rain showers at times.

SATURDAY 5th September 1992

Angus and Luke reached Jonathan by approximately midday and re-splinted his leg after administering Temgesic. Two hours later DF118 was given to Jonathan prior to lowering him part way down the mountain. They expended a lot of physical and mental energy in the process, as Jonathan had to be continually guided and manhandled by

Luke, over rocks and ice, whilst Angus lowered them both on the ropes. During the lowering Jonathan was conscious, but completely immobilised below the waist and only able to help himself occaisionally with his arms. For most of the time the terrain was not steep enough to allow the casualty to be lowered 'free'.

A group of Indian men from the nearest village, Kabban, joined Dave at a col at about 5100m, between Tupendo 1 and a small forepeak, where the rock climbing proper started. They scrambled on up to Angus, Luke and Jonathan, and with only limited English ascertained that the three of them were remaining where they were for the night. Jonathan was given more DF118 and ate, drank and passed water. The villagers returned to the valley and Dave bivouacked alone at the col in case assistance was required early next day.

Weather was quite good with only a few light showers.

SUNDAY 6th September 1992

Jonathan had soup, chocolate, and more Temgesic and DF118 for the pain, and urinated in the morning. An Indian Army helicopter overflew at 9am but was unable to be of assistance, departing straight away. Jonathan was lowered throughout the day and reached the col at 4pm. Dave and the villagers offered assistance but there was little could be done during the roped lowering. Jonathan took Temgesic twice during the day and ate, drank and urinated during the evening. He was conscious throughout and helped himself wherever possible, although in pain for much of the time, with sufficient fresh blood coming from the wound to stain the snow. The villagers descended to the valley and Dave, who had eaten little food with no hot drinks for the last three days and was becoming dehydrated, returned to base camp, whilst John brought a tent up to the col that night to provide shelter for Jonathan. Food and fuel was very limited at the col and there was little anyone could do apart from attend Jonathan's personal needs.

During the night Jonathan suffered a great deal of pain for which he took Temgesic on two occasions. His leg was resplinted at 3am to try to improve comfort. The right boot was removed and no damage to his right foot was observed.

Since the five had split up to effect the rescue it had been very difficult to communicate progress, which, combined with the strain of the situation, resulted in some irrational behaviour at times. In particular there was no way of knowing if or when a helicopter might return, and everyone experienced feelings of frustration and anger at being unable to influence events significantly.

The weather was quite good with little precipitation, although there was some cloud on the mountain.

MONDAY 7th September 1992

With the uncertainty of the whereabouts of the helicopter and its ability to effect a rescue from the mountain it was necessary to invoke an alternative plan. The villagers, who had stayed at base camp that night had offered to help and were asked by Dave if they could construct a stretcher.

The trekking group, Dawn Hatton, Mike Hatton, Mark Thomson, Tess Thomson and Bachan Singh the sirdar arrived at base camp later that morning and were informed of events by Dave. Dawn, as medical officer was able to assess the situation and take charge of medical aspects relating to both Jonathan and the rest of the group, who had been under considerable stress.

At 1pm Angus returned to base camp, exhausted, hungry and thirsty, and his behaviour reflected the strain of the past few days.

He had not been able to remove his contact lenses so his eyes were very sore. The tips of most of his fingers were lacerated and they were dressed with dry bandages. He had food and drink and needed comfort and reassurance before taking two Temazepam tablets to help him sleep.

During the day, Jonathan was partly lucid, and ate, drank and passed urine, taking analgesia when he felt it was necessary. His leg was repositioned to improve comfort and the smell from the wound was now becoming very evident. One person remained in the tent with him and during the night he complained of the cold and was covered with extra clothing. He continued to take drink and passed urine, sleeping intermittently.

Mike Hatton and Bachan set off for the col in poor weather conditions with a second tent and more provisions. They were guided by Bansi Lal, the head man from

the village who already knew the whereabouts of the others. It was important that Luke had the opportunity to come back to base camp to rest, while John Knifton, who had not been involved with the lowering, was better able to stay another night.

Later some men arrived from the village with materials to construct a stretcher and at 7.40pm Bansi Lal returned to base camp. They all stayed the night at base camp.

TUESDAY 8th September 1992.

Angus had a broken tooth which was lacerating his tongue and Mark Thomson filed it smooth, under cover of Oil of Cloves and two Paracetamol tablets. His fingers were redressed with more secure dressings.

The villagers were asked to go up to the col with the stretcher and were accompanied part way by Mark, to ensure that their actions were understood by the others. There had been problems with the villagers, who spoke very little English and were ill equipped (by our standards) for the mountains, helping themselves to climbers clothing and equipment, resulting in bad feeling from some expedition members.

During the morning Angus insisted on going back to the col although Dawn did not think he was sufficiently rested since he appeared tired and aggressive. He was given instructions on how to administer a Triplopen injection since it was obvious from his report on Jonathan's condition that the wound was smelling quite badly, indicating that infection was probably present. Dawn asked him to get the following information on Jonathan's condition:

pulse, respiration, amount of bleeding, what his mental state was, whether he was passing urine and if he was eating and drinking.

During the morning Bachan returned to base camp, tired and hungry and Luke returned alone at about midday and reported on the condition of Jonathan. Luke looked tired but was otherwise in reasonably good physical condition although his behaviour reflected the strain he had been under.

Jonathan was delirious at times but when conscious he was able to maintain good conversation. He was passing dark slightly red looking urine (about 2 litres in the past 24 hours) and was still eating and drinking but seemed to be deteriorating each day. The wound was smelly and still bleeding a little. At times he was groaning with pain and was taking Temgesic and DF118 tablets. It was evident that Jonathan really needed the morphine that had been denied us by the general practitioner in England.

Angus arrived with the Triplopen and the injection into the left leg was made at 1.30pm, by John.

Eight villagers arrived at about this time and assembled the stretcher. Nobody knew their abilities and there was naturally some reluctance to entrust Jonathan to their care. However, Angus, Mike and John were eventually persuaded to let the villagers carry Jonathan down to base camp.

Dave left base camp at mid-day for the camp 1 boulder, with the Limpet tent and extra provisions in case there were problems with moving Jonathan, necessitating an overnight halt. It was cloudy, and so there was little chance that the helicopter would get in that day and during the afternoon it started raining.

It was late afternoon when Angus returned to base camp with news that the men from the village were evacuating Jonathan from the mountain. Dawn decided to go up to meet them since she was concerned about Jonathan's condition, and feared that the strain of being moved might be too much for him, and there was a real risk that he might die.

Dawn gave instructions for those remaining at base camp to prepare one of the mess tents to receive Jonathan. She arranged for foam mats, a dry sleeping bag, a stove and hot water to be provided, for their return.

At 4.50pm Dawn left base camp with Bachan Singh and Luke. She was still very weak from her ordeal crossing the Kabban La the previous day whilst suffering from the effects of prolonged gastro-intestinal problems, and was therefore very slow.

The weather gradually deteriorated, with continuous rain by the time the stretcher party reached the camp 1 boulder at 5pm. The 8 villagers had carried Jonathan down 700 meters of glacier and steep loose moraine scree, wearing only their thin everyday clothes and moving with complete co-ordination over terrain that we had struggled on in our expensive mountain clothing! They were clearly very

experienced in this task and were keen to continue to base camp after a brief rest. Jonathan was conscious at this time, tied to the stretcher, and although strained by the jolting was prepared to carry on. At 6pm the descending party met the group from base camp who had spare torches, and as darkness fell, amid violent thunderstorms, everyone continued down to base camp.

The villagers rested at intervals, which gave Dawn a chance to assess Jonathan's condition. He was wrapped in two sleeping bags and two Goretex bivi bags. He was able to converse, being conscious and in pain, extremely pale, with very cold hands. His pulse was surprisingly strong, his pupils were dilated and there was a strong gangrenous smell emanating from his leg.

It was 8.30pm when the group reached base camp, tired and very wet. It was unlikely that the journey would have been attempted if the weather had been forecast, but it was essential since the tent left at the col was later found to be badly damaged in the storms.

Jonathan was carried into the prepared mess tent and was helped into a position that enabled him to pass urine, (about 250mls). It was surprising how much he was able to do for himself. He was carefully lifted into a dry sleeping bag, and as he was in a lot of pain he was given one Temgesic tablet, two DF118 tablets and 5mgs Valium. Dawn washed his face and hands and gave him a drink. It was necessary to put an umbrella up over his head to prevent the rain, which was leaking through holes in the tent, from falling onto his face. He settled and appeared reasonably stable, so Bachan and Luke stayed with him whilst Dave and Dawn went to get some rest.

WEDNESDAY 9th September.

At 4am, Luke woke Dave and Dawn to say that Jonathan was in considerable pain having slipped into an uncomfortable position. It was necessary to wake Amar and Bipen the cooks, who together with Bachan and Luke helped to get him comfortable. Then Dawn attempted to get his pain under control again. It took extra Valium and eventually two co-proxamol in addition to Temgesic and two DF118 before he eventually settled and fell asleep.

Further plans of action were formulated, firstly to attend to Jonathan's injuries and secondly to continue with his evacuation to a hospital.

After daybreak Jonathan agreed that his leg should be looked at and what ever action necessary be taken. We were very concerned about what would be found as the smell emanating from the wound was quite overwhelming and there was a possibility that gangrenous tissue might be present and need excision. The other more immediate worry was the fact that there was still blood oozing from the wound and a haemorrhage from the damaged blood vessels might occur when the boot was removed.

Dawn asked Angus, John and Luke to write a record of the events on the mountain from the time of the accident and describe how they cared for Jonathan subsequently.

During the morning a runner arrived from Atholi with a letter from David Mortimer explaining that if the helicopter was unable to get in due to bad weather, then arrangements should be made to carry Jonathan down to Atholi. From there a vehicle was available to take him to Kishtwar, and an aircraft to evacuate him to hospital. Unbeknown to everyone at the time was the fact that the Atholi to Kishtwar road had been blocked by landslides and remained so for several days.

The men from Kabban village were willing to carry Jonathan down to Atholi on a stretcher next day. They had spent the night in the second mess tent, drying out around a primus stove, and Dawn and John treated their bruised shoulders; also one man who had sores on his foot, and another who had a broken tooth. Then it was suggested that they return to the village to rest until the following day.

Angus and Mike agreed to go to Atholi to inform David of the seriousness of Jonathan's condition, which had been noticably detereorating daily. It was generally felt that he would not stand the trauma of being carried down another 2000m and then the journey along the dirt track to Kishtwar.

It was agreed that John and Dave (both of whom were qualified first aiders) would work together with Dawn on treating Jonathan's leg. Mark and Luke would act as 'runners' and in the event Tess Thomson and Bachan also became involved.

The Mess tent was cleared of anything unnecessary, and then the area was prepared so that work on the leg could proceed. The cooks were asked to boil 2

stainless steel serving dishes, 3 cups, dressing forceps and artery forceps, to sterilise them. They also provided a large pan of boiled water. Just before starting a serving tray was cleaned with Savlodil in an attempt to have a sterile working area. Both the medical kits were utilised and everything likely to be needed was laid out in an orderly fashion. There was a shortage of crepe bandages and it was necessary to gather more from individuals personal first aid kits.

The expedition tool-kit and a sharp knife was also kept to hand in case it was needed to remove clothing and the boot, together with materials suitable for the construction of a proper splint to immobilise the leg.

In order to sedate Jonathan and render him as pain free as possible, he was given 20mg of Valium, two DF118 tablets and two Co-proxamol tablets thirty minutes before starting work on his leg.

The opportunity was taken to read the notes in the medical kit referring to suturing and use of Lignocaine as a local anaesthetic.

A Temgesic tablet was given a short while before starting and the sedation was effective as he showed no signs of pain, other than a rise in pulse rate and tensed himself when we actually removed the boot. Throughout the procedure he was kept informed as to what was happening and he asked for photographs to be taken, which Mark did with his camera and flash.

A large heavy duty space blanket was placed under the leg to prevent further contamination of the sleeping bag on which he was lying. The temporary splint was removed and his clothing cut away to expose the wound, releasing a strong smell of ammonia as well as gangrene. It was immediately obvious that the injury was a compound fracture of the tibia and fibula, just above the top of the boot. There were two deep lacerations and a severed contracted blood vessel (see photographs 1 & 2, appendix F), and thankfully there were no signs of excessive bleeding. Before continuing, 2mls of Lignocaine 1% were infiltrated directly into the wound.

As the bones attaching the foot to the leg were severed it was necessary for Dawn to support them whilst the boot was removed. Dave kept the ankle in alignment as he and John eased the boot off. Since there was a good deal of blood and serous fluid in the boot this proved to be an easier task than had been feared. An additional space blanket was placed directly under the leg to provide as clean a working area as possible.

Once the boot was removed the gangrenous area on the back of the leg, and the source of the smell was visible, (see photograph 1, appendix F), and a further 2mls Lignocaine 1% was infiltrated onto this area. His foot was swollen and the pulses were present but all the toes were blue and cold.

The lacerations on the top of the leg were cleaned with Savlodil and the infected area was cleaned with a solution made of warm water over iodine crystals. Sterile "Comfeel Ulcer Dressings" were applied to all the affected areas and secured with strapping. For the wound on the back of the leg, a rectangular pad was made using a triangular bandage with strapping already attached and while Dave and Dawn held the leg in alignment John applied this together with the Comfeel dressings.

During this procedure Luke had been looking after Jonathan, swabbing his face and forehead with antiseptic swabs and reassuring him while Mark had been taking observations of pulse, respiration, colour and conscious level, at ½ hourly intervals. These had been steady until the wound had been dressed, when Mark expressed concern that Jonathan's pulse had become rapid at 118 beats per minute and very faint. He appeared semi-conscious, his breathing was very shallow and his eyes were rolling back so Dawn took over these observations at 15 minute intervals.

John and Dave designed and made an improved splinting system using the metal bracing system from one rucksack and the foam former from another (see photograph 3, appendix F). The finished result was a splint that enabled Jonathan to bend his knee slightly.

By 13.00 hours Jonathan's condition had stabilised, and as we had been working on his leg for about three hours and needed a rest, the final bandaging was left until later. The splint had immobilised the fracture and we were all heartened when Jonathan suddenly asked to be helped to sit up and see the finished result.

Mark and Tess took it in turns to stay with Jonathan while the rest of us cleared up. The infected material was burned, all the utensils boiled, and we

washed our hands thoroughly with soap and water, although it was quite difficult to get rid of the smell.

The weather had been cloudy at times although no further rain, and it was very surprising when an army helicopter arrived at about 13.30hrs with David Mortimer on board.

The pilot was concerned that the weather might deteriorate and so it was necessary to hastily prepare Jonathan for the journey. The bandaging around the leg was completed, and he was helped to pass urine. He was given more analgesia and a drink, and some fresh clothing, before being carried to the helicopter. There was some difficulty getting him in since the bench seat behind the pilot was very narrow (see photograph 4, appendix F). It was only by virtue of the fact that the splint allowed his leg to bend at the knee that it was possible to keep it in a relatively comfortable position up on the seat and close the door. The helicopter departed immediately with David Mortimer crouched beside Jonathan as they journeyed to Jammu where he was transferred to the SMGS medical college hospital. (See note 1 on page 8)

The whole team at base camp could then relax as further responsibility for Jonathan had been lifted.

The remainder of the expedition continued without further serious medical problems, just the usual gastro-intestinal episodes.

Dawn and Dave Hatton November 1992.

Note 1

On Thursday 10th September Jonathan and David flew by internal airline to New Delhi and the East West Medical Centre. During the following days further treatment was given to the injury and on the 19th September Jonathan was considered fit enough to be flown to England, accompanied by David and a doctor.

Appendix A

British National Formulary. B.M.A. and Royal Pharmaceutical Society.
Mount Everest Foundation. The Physiological Hazard at High Altitude.
Hillebrandt D. Planning an Expedition Medical Kit
Ward M. et al. Medical Science in Kongur, China's Elusive Summit.
Clarke C. Health and Medical Equipment in Kongur, China's Elusive Summit.
Clarke C. (1989) Diamox and High Altitudes. Mountain Medicine Centre, St Bartholomew's Hospital.
Clarke C. (1989) Frostbite - Practical Suggestions. Mountain Medicine Centre, St. Bartholomew's Hospital.
Clarke C. (1986) Climbing at Extreme Altitudes. Mountain Medicine Centre, St. Bartholomew's Hospital.
BMC (1972) Mountain Hypothermia.

Appendix B

Acknowledgements

A list of drugs likely to be required was compiled and given to Miss Cathy Chandler, the drug information pharmacist at Heatherwood Hospital, Ascot. She analysed the list making recommendations and in some instances suggesting alternative drugs.

Sister Gale Hare at the Accident and Emergency unit, Wexham Park Hospital, Slough spent time discussing first aid measures and suturing skills.

Mrs Rosemary Cave the Hospital Macmillan Nurse and Dr Sue Mann a consultant anaesthetist at Wexham Park Hospital advised Dawn Hatton about pain control techniques.

Boehringer Ingelheim, Bracknell provided for each expedition member:-
- 2 tubes Uvistat sunblock cream 20

- 2 bottles Uvistat after sun lotion
- 2 tubes Uvistat lip screen 15

They also offered to supply the expedition with a recently developed analgesic, Oramorph (10mg in 5mls). This is a controlled drug and could only be released to Dawn Hatton via a doctor. In the event the General Practitioner Group refused to accept it and we were denied the use of a very necessary drug during the subsequent emergency.

Coloplast Ltd, Peterborough provided special dressings as follows:-
- 40 Comfeel ulcer dressings 10x10cm
- 90 Comfeel mini dressings 6x4cm
- 30 Comfeel transparent dressings 9x14cm

The ulcer dressings proved ideal during the emergency.

Appendix C — MEDICAL KIT for the CLIMBING GROUP

WOUND DRESSING

6 plain lint dressings with bandage No.8
4 plain lint dressings with bandage No.6
10 Comfeel transparent dressings 9 x 4cm
6 Comfeel ulcer dressings 10 x 10cm
10 Comfeel ulcer dressings 4 x 6cm
2 pkts. gauze swabs 7.5cm x 7.5cm
3 pkts. x 12 assorted adhesive plasters
20 finger dressings with bandage No.7.
10 eye pads with bandage
30 antiseptic swabs
1 pressure bandage 6.25 width
3 Presto Band self adhesive surgical bandages 1" x 4 yds.
1 crepe bandage 2"
1 zinc oxide tape 2.5cm x 10m
1 micropore tape 1"
1 sleek tape 1½" (waterproof)
4 cotton wool
2 triangular bandages

EQUIPMENT FOR GIVING INJECTIONS

5 size 16 needles (fine) for injections BLUE
25 needles for injection intramuscular GREEN
6 swabs for injection (in with needles)
10 2ml syringes
7 2ml ampoules water for injection

EQUIPMENT FOR STITCHING WOUNDS

4 pkts. steristrips 5 x 3 millimetres x 75
3 pkts. steristrips 3 x 6 millimetres x 75
1 pkt steristrip skin closure
1 pair disposable gloves
1 Chromic catgut 2/0 3.5 metric
1 plain catgut 4/0 2.0 metric
1 prolene monofilament 3/0 2 metric
3 mersilk 3/0 2 metric
1 mersilk 4/0 1.5 metric
1 ethilon 3/0 2 metric
1 ethilon 4/0 1.5 metric
1 ethilon 5/0 1 metric

INSTRUCTION SHEETS - STITCHING WOUNDS.

DENTAL

1 dental kit
1 bottle oil of cloves for toothache

FLUID /BLOOD REPLACEMENT

2 intravenous administration sets
1 vasofix needle for intravenous infusion 18 G (large)
1 vasofix needle for intravenous infusion 20 G (small)
1 foley silicone catheter 20 Fr
2 foley silastic catheters 18 Ch
1 blood receiving bag and needle

INSTRUMENTS

1 instrument tray
1 pair sissors
1 needle holder
2 pairs dissecting forceps
1 pair tweezers
1 X-Acto Knife with spare blades
1 pen torch
2 pkts. safety pins
1 magnifying glass
1 low grade thermometer (for hypothermia)
1 wooden tongue depressor

1 UNIVERSAL AIRWAY SIZE 3

1 CERVICAL COLLAR

DRUGS

2 pkts. (one course each) Zinnat tabs. 250mgs. antibiotic
56 Flagyl (Metronidazol) 400mgs for severe gut infections
10 Hydrocortisone 25mgs x 1ml ampoules for asthmatic attack
1 pkt. Frusemide (Lasix) 40mgs. (makes you pee!) cerebral/pulmonary oedema
1 pkt. Dexamethasone 2mgs. cerebral oedema
1 pkt. Diazepam (Valium) 5mgs. tranquillizer/sedative
1 pkt. Dihydrocodeine 30mgs. strong pain killer
6 ampoules Lignocaine 1% injection local anaesthetic for stitching
6 vials Triplopen (penicillin) injection for severe infection
1 pkt. Diclofenac SR 100 mgs. anti-inflammatory
1 tube Germolene 2 antiseptic/anaesthetic for wounds
2 tubes Caladryl for sunburn/rashes etc.
1 pkt. Triludan Forte antihistamine for allergic reactions
1 container x 100 Paracetamol 500mg. pain killer
1 container x 100 Aspirin 300mg. pain killer
1 bottle Senna tablets 7.5 mgs.
2 pkts Tyrozets throat lozenges
12 pkts Dioralyte for rehydration - severe diarrohea

PAD WITH GROUP MEMBERS PERSONAL MEDICAL DETAILS

first aid leaflet
Drug dosage instruction sheet
1 pencil
1 pen
1 space blanket and set of guys etc. for rigging shelter.

MEDICAL KIT for the TREKKING GROUP

WOUND DRESSING
2 plain lint dressings with bandage No.9
2 plain lint dressings with bandage No.8
10 Comfeel transparent dressings 9 x 4cm
6 Comfeel ulcer dressings 10 x 10cm
10 Comfeel ulcer dressings 4 x 6cm
2 pkts. gauze swabs 7.5cm x 7.5cm.
3 pkts. x 12 assorted adhesive plasters
10 finger dressings with bandage No.7
4 eye pads with bandage
16 antiseptic swabs
1 pressure bandage 6.25 width
2 Presto Band self adhesive surgical bandages 1" x 4 yds
1 crepe bandage 2"
1 zinc oxide tape 2.5cm x 10m
1 micropore tape ½"
3 cotton wool
2 triangular bandages
1 Pkt. steristrip skin closures

EQUIPMENT FOR GIVING INJECTIONS
5 size 16 needles (fine) for injections BLUE
20 needles for injection intramuscular GREEN
10 2 ml syringes
5 swabs for injection (in with needles)

INSTRUMENTS (in a packet)
2 pkts safety pins
2 pairs of dissecting forceps
1 pair plastic artery forceps
1 pair sissors
1 X-acto knife and spare blades
1 low grade thermometer (for hypothermia)
2 pairs surgical gloves size 8½
1 airway size 3 (male)
1 airway size 2 (female)
1 wooden tongue depressor
1 pair of forceps for stitching wounds

DRUGS - NB: see dosage instruction sheet.
2 pkts. (one course in each) Zinnat tabs. 250mgs. antibiotic
42 Flagyl (Metronidazole) 400mgs. for severe gut infections
1 pkt. Diazepam 5mgs. (Valium) tranquillizer/sedative
1 pkt. Dihydrocodeine 30mgs. strong pain killer
1 pkt. Diclofenac SR 100mgs. anti-inflammatory
4 ampoules Lignocaine 1% 5ml injection local anaesthetic for stitching
1 pkt. Dexamethasone 2mg. for cerebral oedema
1 pkt. Frusemide 40mgs (Lasix) makes you pee! cerebral/pulmonary oedema
4 vials Triplopen (penicillin) for severe infection - injection
1 tube Germolene 2 antiseptic/anaesthetic for wounds
1 tube Caladryl for sunburn/rashes etc.
1 pkt. Triludan Forte antihistamine for allergic reactions
1 bottle oil of cloves for toothache
1 container x 100 paracetamol pain killer
1 container x 100 aspirin pain killer
2 pkts. Tyrozets throat lozenges
4 pkts. Dioralyte for rehydration - severe diarrohea

PAD WITH GROUP MEMBERS PERSONAL MEDICAL DETAILS

first aid leaflet
Guide to stitching wounds
Drug dosage instruction sheet.
1 pencil
1 pen
1 space blanket and set of guys etc for rigging a shelter.

Appendix E

DOSAGE INSTRUCTIONS FOR MEDICATIONS.

STEMETIL 5mg	Prochloperazine 5mg three times per day, for nausea and vomiting.
FLAGYL 400 mg	Metronidazol 800mg initially then 400mg, 8 hourly for 7 days, for SEVERE gut infections.
AMOXYCILLIN 250mg	250mg 8 hourly, antibiotic for chest and other infections.
TRIPLOPEN	1 vial made up in 2 mls water for injection every two to three days, for SEVERE infections.
LIGNOCAINE 1%	Subcutaneous injection with small needle ½ml - 1ml, 2 to 4 cm around the wound to be stitched until they cannot feel it.
AMETHOCAINE 0.5%	Use one minim for each eye, has a rapid action which lasts a couple of hours, for snow blindness.
DICLOFENAC 100mg	100mg daily preferably with food, anti-inflammatory for muscle/joint pain.
TEMGESIC 0.2mg	0.2mg every 8 hours (can be taken 6 hourly if necessary), painkiller for SEVERE pain.
IMODIUM 2mg	4mg initially then 2 mg after each loose stool for up to 5 days. Maximum daily dose 8 tablets, for SEVERE diarrhoea.
FRUSEMIDE 40mg	Lasix 40mg to 120mg daily, makes you pee! for cerebral/pulmonary oedema.
DIAZEPAM 5mg	5mg three times daily, up to 30mg daily, tranquillizer/sedative.
DEXAMETHASONE 2mg	4mg 4 to 6 hourly, to reduce cerebral oedema.
DIHYDROCODEINE 30mg	30mg, 4 to 6 hourly, for SEVERE pain.
HYDROCORTISONE 100mg	100mg to 200mg 3 to 4 times in 24 hours by intramuscular injection, for ACUTE asthmatic attacks.

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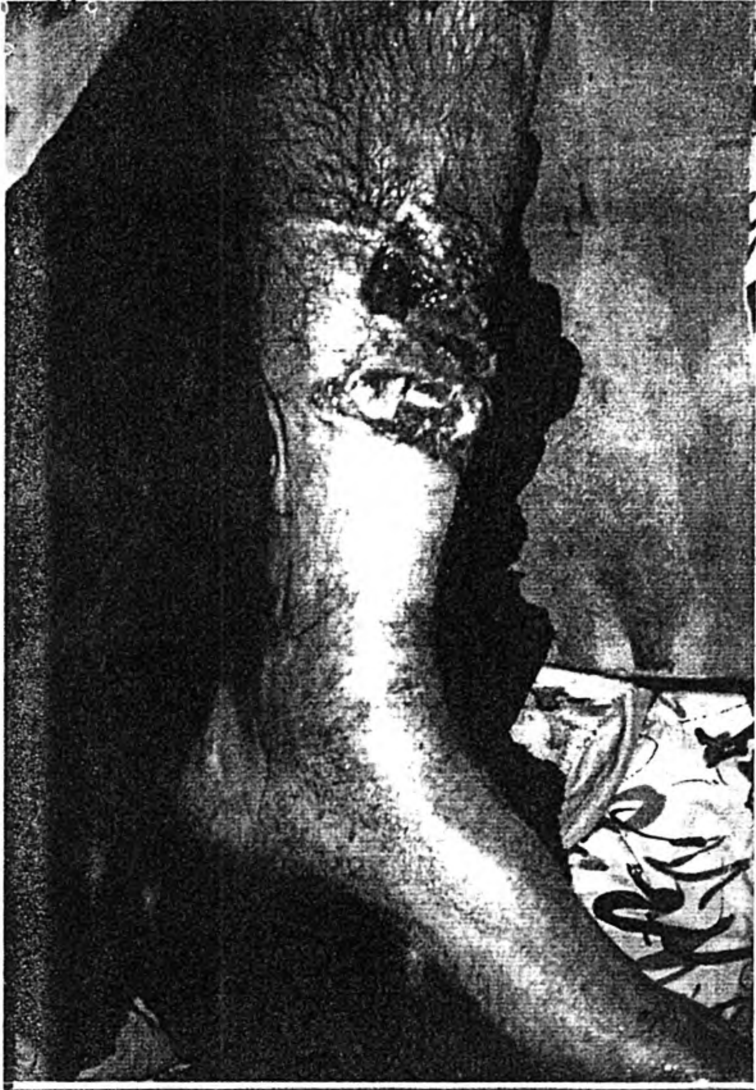

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