Diploma in the Medical Care of Catastrophes
&
Course in Conflict and Catastrophe Medicine

REVISED SYLLABUS 2018

Section 1: Epidemiology of Disasters and societies affected by Conflict
(defining the situation and gathering information)

No	Topic	Definition/Key message	Main items	Components
(a)	(b)	(c)	(d)	(e)
S1:1	Disasters	*Disaster - a disruption of normal life and activities that requires the affected community to make extraordinary efforts to cope with it and usually requires outside help*	1) Types of disaster	Natural A) *Sudden or acute onset* B) *Slow or chronic onset* Man-made *Industrial* *Transport accidents* *Deforestation* Complex humanitarian emergencies Wars, civil strife etc
			2) Phases	Emergency & Post emergency phases
			3) Social, Individual & Public health implications I	Characteristics of Fragile and Failed states Features of post-conflict societies Stabilisation of post-conflict states Urbanisation and disasters

				Patterns of mortality & morbidity – Immediate – Longer term Long term problems due to damage to social structures and infrastructure:
S1:2	Risk	*The probability that an action or activity (including inaction) will lead to an undesirable outcome.*	These risks are the product of: Risk assessment Risk reduction	**Hazards** (damaging things that could occur and the probability that they will occur) **Vulnerability** (the likelihood that the population will be seriously affected by and unable to cope with the event)
S1:3	Epidemiology in disasters	*The use of epidemiological methods to study and manage the public health aspects of disasters.*	Time, Person & Place Numbers and rates Key indicators Data collection methods	Who, What, When, Where, Why, How Numbers required for staffing levels, bed spaces, supplies Rates give true indication of trends Mortality, morbidity: CMR, CFR, Age specific, Maternal, <5YMR Morbidity • Incidence, Attack rate, Incidence rate • Prevalence Nutritional status Health services Vital needs Surveillance systems • Comprehensive • Sentinel Surveys Outbreak investigations • Cohort studies • Case control studies • Descriptive studies •

S1:4	Initial assessment (Needs assessment)	*Assessment provides an understanding of the disaster situation and a clear analysis of threats to life, dignity, health and livelihoods to determine, in consultation with the relevant authorities, whether an external response is required and, if so, the nature of the response"*	1) Methods	Objectives, Preparation, Information sought, Obtaining information, Validity & bias, Personnel, Deployment, Reporting
			2) Content	Environmental & population factors Epidemiology and morbidity factors
			Systems for communicable disease control Health services and support infrastructure	• disease surveillance systems, • public health systems • laboratory services clinical and public health laboratory facilities • medical materiel (medications in use/licensed, availability, supply chain, storage) • blood banking, • vaccination programmes • cold chain arrangements
			3) Sources of information Before deployment of team	• On line (IRINS, CIA World Factbook, WHO website etc). • Embassy/consulate of affected country(s) • Libraries (Universities, medical schools etc)
			In the field	• Host government • Medical services in affected country • Local authorities • WHO & Other UN agencies • Aid agencies in the field • Affected communities
			Dissemination of results	Reports to: • Agency HQ, • Key agencies requiring needs assessment information • Host government
			Existing assessment systems	HESPER, MIRA

S1:5	Public Health Intelligence	*Public health intelligence is involved with gathering and analysing information about the determinants of health, the causes of ill health and the patterns and trends of health and ill health in a population to support decision-making to improve the health of the population.* *Routinely gathered by agencies on countries and areas where they are working or may work in the future.*	Sources Information sought Basic analytical techniques for use in predictive intelligence production.	Very similar to those used in needs assessment (see above)
S1:6	Disease surveillance	*The ongoing systematic collection, analysis and interpretation of data in order to plan, implement and evaluate public health interventions (WHO).* *(Surveillance is a part of Health Intelligence gathering but not the whole)*	Surveillance systems Case definitions Sources of data Evaluation of surveillance systems	Comprehensive Sentinel Clinical (symptom) based Laboratory based WHO, CDC, local Health facilities, individuals, aid agencies

Section 2: Priorities for intervention in disasters				
S2:1	Priorities for intervention	*What needs to be done immediately*	Top 10 priorities (as defined by MSF in the textbook "Refugee Health") Provision of security	1. Initial assessment (Section 1)* 2. Measles immunisation (Section 2) 3. WASH (Section 2) 4. Food & Nutrition (Section 2) 5. Shelter & site planning (Section 2) 6. Health care in the emergency phase (Sections 3 & 4) 7. Control of communicable diseases & epidemics (Sections 3 & 4) 8. Public Health Surveillance (Section 1) 9. Human resource training (Section 6) 10. Co-ordination (Section 5 & 6) (*Refers to Section in this syllabus)
S:2:2	WASH	***Water, sanitation & hygiene*** *requirements for those affected by disasters*	Water WHO Drinking Water Guidelines Local Water Supply legislation Sphere Standards	Water requirements, • Quantity • Quality • Availability Extraction: • Types of sources • Ownership of sources • Other users • Continuity of supply • Security of suply Purification: • Removal of solids • Disinfection • Removal of heavy metals,toxins Storage & Distribution • Mass storage

				• Individual storage • Piped systems • Tankers Disposal of waste water • Systems • Risks
			Sanitation Hygiene	Latrine types (including cultural considerations) Numbers required Location and spacing of latrines Anal cleansing Waste disposal Hand-washing Bathing Laundry Supply of soap, washing materials
S2:3	Shelter and site planning	*Requirements for provision of shelter for those affected by disasters*	UN and WHO guidelines Sphere Standards	Areas required per individual Basic construction specifications Layout of camps, including minimising of vulnerability of individuals/sections of populations. Spacing between dwellings Provision of facilities
S2:4	Food and nutrition	*Requirements for provision of food for those affected by disasters, both normally nourished and malnourished*	UN and WHO guidelines Sphere standards Identification of vulnerable groups Daily calorific requirements Micronutrient requirements	 2100Kcal/person/day Vitamin A, Zinc, Iron, Iodine

			Types of malnutrition and clinical features	Kwashiorkor Marasmus

			Clinical & other complications	• Mild growth retardation and weight loss
				• Later stages:
				  ○ Apathy
				  ○ Lack of facial expression
				  ○ Loss of appetitie

			Main causes of death	Hypoglycaemia Hypothermia Infection Dehydration
			Assessment	Weight for height (Z scores) Weight for age MUAC
			Management of malnutrition in populations	Types, clinical implications and requirements • Selective (lacks evidence base) • Therapeutic • Community based Other activities: • Breast feeding • Extra rations for pregnant and lactating women • Support other vulnerable groups • Treat infectious disease • Vaccination (measles) • Vitamin A
			Foods	Local customs - palatability and suitability for local tastes/ religious requirements Local availability

				Food delivery – World Food Programme (WFP), agencies, logistic considerations Food security and vulnerable elements Rationing
S2:5	Evaluation of interventions	*Evaluation of effectiveness of interventions with respect to donors, recipients and agencies*	Principles and methods of evaluation	Means of evaluating single projects and programmes Reporting
Section 3: *Recognition, prevention, treatment and control of communicable diseases. Recognition, prevention and control of epidemics* [Communicable diseases of importance in disasters and societies affected by conflict Morbidity and mortality Causes, measurement and reporting Natural history of disasters and societies affected by conflict In terms of disease]				
S3:1	Important vector-borne diseases and zoonoses	*The most important vector borne and zoonotic diseases likely to affect those involved in disasters*	Arthropod vectors Rodent vectors Reservoir hosts Important vector borne diseases Viral haemorrhagic fevers Vector control measures:	Mosquitoes, Sandflies, Ticks, Lice Rats (brown, black, multimammate), mice, bats Species that maintain the disease/ are the normal hosts Malaria, Yellow Fever, Dengue, Typhus (Tick and louse borne), Leishmaniasis, Plague Yellow fever, dengue, Ebola, Marburg, Lassa fever, CCHF Hygiene, site selection & management, sanitation, safe and effective use of Insecticides (larviciding, residual spraying, fogging, baiting, impregnation of bednets),

				rodenticides and traps, waste disposal Control of breeding sites Limiting access to buildings (rodent proofing, control of vegetation around buildings, insect screens)
			Wild and feral animals and their potential role in the spread of disease, and as a reservoir of zoonoses	Diseases transmitted by wild and feral animals Effective and humane control of wild and feral animals
S3:2	Individual protection against insect vector-borne disease	*Measures to prevent or limit the incidence of insect vector borne disease*	Chemoprophylaxis Vaccination Vector avoidance/Bite avoidance,	Anti-malarials Yellow fever Protective clothing, bednets (preferably impregnated with an appropriate insecticide), insect repellents
S3:3	Important oral route diseases	I*mportant diseases transmitted via the mouth*	Important infectious diseases Toxins in food and water Prevention & Control Treatment:	Cholera, typhoid, dysentery, hepatitis A & E, food poisoning (*Salmonella*, *Campylobacter*, *E.coli*, viral pathogens [norovirus, rotavirus etc]), polio, Shigella, cholera, bacillary dysentery, travellers diarrhoea, amoebic dysentery, [Diarrhoea caused by non GI organisms] Botulism, *Staphylococcus aureus*, *Bacillus cereus*, scombrotoxins, ciguatera, Clean water and safe food, insect control, waste control, Personal hygiene (handwashing) Rehydration (oral, IV) Oral zinc supplement Antibiotics Antimotility agents (and when to avoid use of these)
S3:4	Important airborne diseases	*Important diseases acquired primarily by inhalation*	Important diseases Control	Measles, meningococcal meningitis, influenza, pneumonia, diphtheria, TB Methods of control

			Mechanisms of transmission Health implications	Aerosols, role of hands Often underestimated, implications for children, shelter and indoor smoke, health promotion via home visitors or similar
S3:5	Important blood-borne diseases	*Important diseases transmitted in blood, blood products and body fluids*	Important diseases Prevention and Control	Hepatitis B, C, HIV Vaccination (Hep B), PPE, PEP Barrier contraception
S3:6	Important sexually transmitted infections		Important diseases Infection prevention Treatment Implications	HIV/AIDS (see below), Chlamydia, Gonorrhoea, Syphilis, Herpes Hepatitis B (see above) Barrier contraception Public Health Education Antibiotics, PEP, triple therapy Helping those living with HIV, issues of stigma, mainstreaming into other programmes Identification through community outreach workers,
S3:7	HIV/AIDS		Epidemiology Disease staging/progression Clinical disease ART/ART scale-up	Rates & locations HIV Acute infection Chronic HIV infection Clinical infections Respiratory disease – PCP, TB CNS disease GI disease/AIDS wasting PUO Antiretroviral treatment Prevent clinical disease/AIDS/death Prevent transmission

			Prevention of mother to child transmission (PMTCT) Post-exposure prophylaxis (PEP)	Risk factors Preventive activities Exposure risks Treatment
S3:8	Other common/ important diseases/infections occurring in disasters		Wound infections Skin infections Helminth infections Ectoparasites Fungal infections	 cestodes (tapeworms), nematodes (roundworms), and trematodes (flukesFlukes Scabies, lice, fleas Scabies in children – treatment and prevention through community programmes Oral candidiasis Dermatophytes
S3:9	Vaccination/ immunisation	*Use of a preparation of a weakened or killed pathogen or part of its structure to stimulate immunity against the pathogen*	When to vaccinate What specific vaccines are appropriate? Effectiveness of vaccination programmes	Need for vaccination programmes Timing of programmes Routine or as a response to an outbreak?
S3:10	Vaccination programmes	*The techniques and equipment needed to set up and operate vaccination programmes*	Types of vaccines Diluents Equipment for vaccinating Cold chain	Lyophilised (Freeze dried) Single and mixed vaccines Needles and syringes, sterilising equipment, sharps disposal Cold chain • Dedicated refrigerators and freezers (special

			Logistics
			
			Staff
				temperatures
				• Daily recording of temperatures
				• Cold boxes, cool packs, insulating material
				• Vaccine storage
				  ○ Correct temperatures
				  ○ Protect from light
				
				Transport, accommodation, cold chain
				
				Vaccinators, support staff

Section 4: *Clinical Knowledge* The specialised clinical knowledge which gives the aid worker the ability to deal with the health problems likely to be encountered in the disaster environment				
(S4:a) Environmental injuries and medicine in remote environments				
S4:a:1	Heat injury – recognition, treatment and prevention	*Injury caused by exposure to the sun or in hot conditions*	Types of Heat Illness/Injury; Recognition of: Heat Stress Heat Stroke Preventive Measures: Predisposition to heat illness Treatment principles	Sunburn Prickly Heat Heat Stress/exhaustion Heat Stroke Core temperature Acclimatisation Monitoring of water intake Appropriate clothing Salt intake
S4:a:2	Cold injury – recognition treatment and	*Injury caused by exposure to extremes of cold*	Types of cold injury	Frost nip Frostbite Immersion Foot Hypothermia

	prevention		Recognition of Hypothermia Peripheral cold injury Preventive measures: Predisposition to cold injury Treatment principles Altitude considerations, including altitude sickness	 Appropriate clothing Diet Fluid intake Fitness

S4:a:3	Injuries due to bites and stings	*Injury cause by the bites of or contact with poisonous living organisms*	<u>Poisonous and venomous organisms</u>:
			
			Important venomous snakes,
			
			Types of snake venom
			
			Signs & symptoms
			
			Initial symptoms (even if no bite or no venom injected)
			
			Envenomation: Local symptoms & signs
			
			Systemic symptoms and signs
				Poisonous creatures – use toxins for passive defence:
				Venomous creatures – use poisons for active attack
				
				• Elapidae,(tropical and subtropical except Europe)
				  ○ Cobras, mambas, kraits, sea snakes
				• Viperidae (Americas, Africa, Eurasis)
				  ○ Vipers, rattlesnakes
				• Colubridae (Sub-Saharan Africa)
				  ○ Boomslangs
				
				• Elapidae - mainly neurotoxic
				• Viperidae - mainly haemotoxic and proteolytic
				• Boomslangs - haemotoxic
				
				• Agitation, shock
				
				• Bite marks
				• Pain,
				• Swelling
				• Tissue damage

			Elapid bites	• Neurological
			Viper bites	• Cardiovascular signs • Bleeding and clotting disorders • Tissue necrosis
			Treatment Initial treatment	• Check person has been bitten • Reassure • Try to retard systemic absorption of venom • No food – especially alcohol • Do NOT interfere with bite wound or apply tourniquet • Treat symptoms as they arise • Analgesia (not aspirin or NSAIDs) • Move patient to medical care • Try to identify the snake
			Antivenom treatment	• Monovalent or polyvalent • Cannot undo damage already caused by venom • Immediate or delayed hypersensitivity reactions
			Other poisonous or venomous organisms	• Arthropods (spiders, scorpions, centipedes, bees, wasps) • Aquatic animals (fish, jellyfish, octopi, algae) • Plants (nettles, poison ivy, algae, mushrooms, Cassava))
			Treatment of poisoning or envenomation	Antivenins Treatment for jellyfish stings (Hot water, Vinegar) Anti histamines Allergic reactions – adrenalin Inappropriate/outmoded treatments
			Preparation for dealing with bites etc. when working in the programme location	What dangerous animals and plants are present locally? Location of treatment centres Local availability of antivenins etc. Brief team members, health education material for client population

(S4:b) Appreciation of the principles of Pre-hospital emergency medicine (PHEM), triage, trauma, surgery, resuscitation				
S4:b:1	Evacuation of casualties by road/ship	*The medical requirements for and potential problems associated with the medical evacuation of casualties by land or sea*	Medical problems of medevac by road Use of ships & trains for evacuation & as treatment centres	
S4:b:2	Aeromedical evacuation (AE)	*The potential role for aeromedical evacuation*	Role Limitations Capabilities Clinical considerations Military role and capabilities Disadvantages	Deliver teams and equipment, remove casualties, access specialist care, evacuate aid workers Cost, availability, time to organise, site access, capacity, working environment, physiological challenges Helicopter: easy access but limited range and capacity, hostile working environment Fixed wing: need a landing strip and logistic support but increased capacity and range Basic physiology of hypoxia and pressure changes AE essential to military ops to reduce medical footprint, expected standards of care, ranges from basic resuscitation and evacuation to intensive care recovery to home nation Limited asset, expensive, who do you evacuate, may make triage more complex, may splinter families
S4:b:3	The “<C>ABCDE” PHEM system	*The structured treatment of casualties*	Principles	Primary survey and resuscitation Team based horizontal resuscitation Secondary survey- where carried out, often in medical facility some time later Triage before treatment in mass casualty situations

S4:b:4	Triage	*The application of a system to prioritise the immediate treatment of casualties*	Definition of Triage	A system for sorting casualties, cascading down from the most urgent to the non-urgent, in order to prioritise them for treatment (non-treatment) or evacuation, and repeating this at each echelon (handover) of care
			Aim of Triage	To address medical resources towards those who have the best chance of survival
			Principles of Triage	Triage is a dynamic process that can be performed at various stages in a mass casualty situation
			How triage is performed	Methods, limitations, who can perform triage, labelling and flow of information at an incident requiring triage. Triage should be: Simple Rapid Reproducible Safe Anatomical: descriptive not easily reproduced Physiological: clinical signs, easily reproduced
			Types of triage	Knowledge of each system and where each is performed T system, physiological, anatomical and mixed Compensated T1 Immediate T2 Urgent T3 Delayed Uncompensated (mass casualties) T1 Immediate treatment: require emergency life-saving resus and/or surgery that is not time consuming & leads to a good chance of survival T2 Delayed treatment. Require major surgery or medical Rx but can wait after receiving sustaining Rx T3 Minimal treatment. relatively minor injuries & longer delay is not life threatening. Can effectively take care of themselves or be helped by untrained people.

				Minor self-help T4 (T1 Hold) Expectant treatment. Multiple injuries, need time/materiel consuming Rx. Given supportive Rx. (?not survivable)
			Triage sieve/sort	Sieve: Assess Mobility Assess ABC Sort: for evacuation Based on physiological parameters: Respiratory Rate Systolic BP GCS (Each parameter is given a score of 0 – 4: relationship to T system)
			Items to consider:	'Tactical' situation aka scene management Is there a plan? Rehearsed? Numbers of casualties Numbers of staff & quality Resources Equipment available Availability of transport Time lines Clinical findings Salvageability Safety of staff Environmental risks Security risks Access
S4:b:5	Resuscitation	*Interventions needed to halt, then reverse, life-threatening changes to key physiological processes.*	ATLS Primary survey Resuscitation Secondary survey	 Airway + or – cervical spine control Breathing and ventilation when needed Circulation with haemorrhage control D E First peak: seconds to minutes after injury Second peak: minutes to hour(s) -'Golden hour' of trauma

			Definitive care Trimodal death distribution Damage control resuscitation Appropriate resuscitation Fluids: *Pre-Hospital fluid administration*	care Third peak: days to weeks after injury Aim to optimise outcome by: Maximising tissue oxygenation Minimising blood loss Aggressive approach to Hypovolaemia Hypotension Coagulopathy - MHP Hypothermia Acidosis Near-patient diagnostics Focussed abbreviated surgery Intensive/Critical Care Routine v Major disaster Military v Civilian Mascal v Non-mascal situation Triage Resource allocation No inappropriate treatment Be aware of unique injuries/diseases linked to the scenario Keep it simple Extemporise Maintaining circulation and blood pressure, importance in head injuries and burns Not a blood replacement, risk of clot disruption and worsening haemorrhage Pre-hospital consensus view on fluid use and NICE pre-hospital fluid guidelines Awareness of different fluid types

			Advantages of giving fluids to casualties Disadvantages of fluids Administration of fluids Types of fluids	
S4:b:6	Relevant Injury Patterns	*An awareness of the most likely casualty types*	Explosive injuries Classification of blast injuries	Most injuries are caused by energised fragments Fragments from the bomb - primary fragments Fragments from environment – secondary fragments Falling masonry or similar Blast (wave) 2 elements: Shock wave Travels at >330m/s High overpressures Short duration Dynamic overpressure (blast wind) Heat from explosive products Shock wave: Accelerates the body wall Propagates through tissues as a pressure (stress) wave Loses energy at different density interfaces, e.g. air/tissue interface - lung Dynamic overpressure Shears tissue (gross soft tissue injury) Loads the body and body wall - displacement Avulse fractured limbs Primary - principally air/gas-containing organs Primary blast lung – 70psi Bowel injury Auditory – 2psi Some solid viscera

				Secondary - wounds from fragments Penetrating - superficial to perforating Visceral injury from blunt impacts Tertiary Traumatic amputation of limbs Displacement of the body Tissue stripping by gas flow Quaternary Crush injuries Burns Psychological Quinternary Immuno-compromise Neurological – repeated TBI Importance of initial haemorrhage control, management of amputees, co-existing pelvic injuries in blast casualties
			Crush injuries	Awareness of consensus statement on crush injury and crush syndrome, long term complications, management of prolonged trapped casualties Kinetic energy 'dump'. $\frac{E = MV^2}{2}$
			Bullet/ballistic wounds	Cavitation & stress wave Potentially severe within solid tissues, especially those enclosed by bony or capsular integument ((Brain, liver, muscle) Value of body armour (see also Section 6 Security)
S4:b:7	Analgesia for trauma casualties	*Types of analgesia, administration and complications of use*	Analgesia types Administration Complications Applicability to disaster teams Prolonged entrapment	Simple vs therapeutic methods Available routes and indications for each Of commonly used agents Limitations in carrying equipment Difficulties managing analgesia requirements vs side effects in trapped casualties

(S4:c) Primary care in disasters and conflict environments				
S4:c:1	The management of primary care	*Dealing with the increase primary care needs that can affect those caught up in disasters and conflict*	Most common health needs in each phase of a disaster Public health needs Specific problems Specific vulnerable groups Chronic infections Prevention Isolation Treatment Chronic diseases	Emergency, chronic emergency, transition, post conflict (see also Module 1) Communicable diseases, malnutrition, Children and the elderly, women of reproductive age (see also Section 1:1) TB, HIV/AIDS Immunisation, water and sanitation, camp planning and shelter, outreach and home visitors Antimicrobials, supportive treatment, national protocols, outreach / primary centres/ support to local systems, referrals Diabetes, renal failure, cancers, home-based care, referrals, local protocols
S4:c:2	Standards and challenges for primary care in disasters and conflict environments	*The health services which play a central role in disaster response and involve the widest scope of health care*	Sphere guidelines for health care, Principle of treatment of common diseases in large populations Issues of resource limitations Medicines management in disasters Support to local systems / provision of health posts /	WHO guidelines such as epidemic thresholds Forward planning, considerations of host population needs and available resources Ministry of Health definitions if available, WHO definitions, definitions adapted to specific circumstances and resource availability Cold chain, supply chain, storage, expiry dates, WHO guidelines on donation standards, security, documentation Pros and cons of support to local facilities where existing vs developing parallel structures

			centres / clinics	Human resources and sustainability; local HR structures, salaries, needs
S4:c:3	Maternal and Child Health (see also S4:c:5 & S5:b:4 below)	*The special health demands of this vulnerable group*	Reproductive health (see below) Immunisation MCH programmes (see primary care above) Mental health Gender-based violence (see also reproductive health - below)	 Measles vaccination, Extended Programme Immunisation, cold chain, support to local structures Integration, support to local structures, links with nutrition, reproductive health, immunisation, psychosocial care Needs created by disaster and conflict environments, locally appropriate responses, referral services Potentially increased needs in disaster and conflict environments; prevention; treatment and follow up; local support programmes.
S4:c:4	Reproductive health	*A state of complete physical, mental and social well-being, not merely the absence of reproductive disease or infirmity.* *Reproductive health deals with the reproductive processes, functions and system at all stages of life.*	Minimum Initial Service Package (MISP) Safe Motherhood Sexual and Gender-based violence) Sexually Transmitted Diseases, including HIV/AIDS Family Planning Young People	Immediately available resources provided on the basis of best practice without the need for a complex needs assessment To enable women to go safely through pregnancy and childbirth. To provide couples with the best chance of having a healthy infant; locally acceptable provision; religious considerations Special needs of adolescents
S4:c:5	Health of children	*The particular risks facing this especially vulnerable group in the disaster*	Vulnerable groups Nutrition	Unaccompanied children, children in work, child soldiers

		environment	Susceptibility to infectious disease Chronic disease Exploitation Protection Schooling & play	See especially ARIs, measles, GI infections Labour, sexual & gender based, child soldiers Reunification, local networks, Min of SW, special programmes Integration or special programmes, camp planning, designated resources, sport
S4:c:6	Health of the elderly	*The particular risks facing this vulnerable group in the disaster environment*		
(S4:d) The psychosocial and mental health implications of disasters				
S4:d:1	Anticipated and pathological psychosocial reactions to severe stress	*Defining the range of people's reactions to stress in disasters*	The impacts of traumatic events (including displacement and asylum seeking) on families, children and older people and their common reactions to severe stress. This includes: a. Normal and pathological reactions to trauma and disaster; b. The common coping mechanisms that people of all ages use when faced with severe stress; c. Outline understanding of the impact of traumatic events on people's future	The concept of primary and secondary stressors;

			psychosocial development; Cultural differences in coping.	
S4:d:2	Psychosocial resilience	*Defining the nature of psychosocial resilience and the factors that protect people from the psychosocial and mental health implications of disasters*	The nature of distress and differentiating it from mental disorders in response to traumatic circumstances. The definition of psychosocial resilience in the context of traumatic events and its 'personal' and 'collective' dimensions. A basic understanding of the concept of post-traumatic growth.	
S4:d:3	Awareness of people's longer-term and/or problematic psychosocial reactions to trauma and mental disorders after traumatic events	*Knowledge about the broad range of psychosocial problems and mental disorders that can affect people after disasters*	The core factors that increase the risks of people responding adversely, including developing mental disorders, after traumatic events in the short, medium and longer terms. The circumstances and/or disorders that require intervention delivered by: a. every responder; and b. mental health specialists. A simple summary of the epidemiology, impacts and prognosis of the most common psychosocial responses and mental disorders. More information on only the mental disorders that are most frequent following traumatic events.	Critical awareness of the literature This section must cover people of all ages

S4:d:4	Awareness of contemporary doctrine on planning and delivering ethical and effective psychosocial and mental health care after disasters	*Defining the steps in planning and delivering psychosocial and mental health care immediately after disasters and in the medium- and longer-terms*	Awareness of the NATO-TENTS principles for psychosocial and mental health care for people affected by disasters, war, terrorism, and displacement. This includes: a. A broad outline of the NATO-TENTS principles for good practice in planning and delivering psychosocial and mental health care for people affected by disasters; b. Awareness of NATO's strategic stepped model of care; Awareness of the importance of, and challenges for ethical practice of trauma-care; Awareness of the methodological and ethical challenges of research during disasters, war and all other traumatic events.	TENTS is an EU-funded programme Common cross-agency issues Good multi-agency working practices May include reference to the new Sphere Handbook on its publication (it is in revision presently) and to forthcoming WHO guidance
S4:d:5	Preventing psychosocial problems and mental disorders and early psychosocial interventions with communities and families	*Prevention and initial community- and family-orientated psychosocial responses by agencies including certain specific interventions with people who have psychosocial problems*	The psychosocial importance of restoring communities and priorities for action. The concept of re-traumatisation and its relevance to psychosocial and mental health care. General approaches to planning and delivering effective psychosocial interventions for communities	The importance of good communication skills Doing no further harm

			that have been affected by disasters and major incidents of all kinds. The roles of schools and work. Providing information following traumatic events. Psychological first aid and its components. An outline of the evidence for screening for, and preventing post-traumatic disorders.	Psychosocial care that all responders can and should deliver
S4:d:6	Evidence-based interventions for common post-traumatic psychosocial problems and mental disorders	*An outline of good practice for non-mental health service staff including awareness of what does and does not work in assessing and treating people who develop post-traumatic mental disorders*	The principles of an evidence-based approach to preventing, recognising and treating post traumatic mental disorders Critical knowledge of, and basic skills in assessing and intervening with people who are affected psychosocially or who develop mental disorders Recognition of common problems (includes rape/sexual abuse). Core principles of assessment including basic psychosocial and psychiatric assessment and triage A plain guide to what interventions work for whom and which do not. Critical decisions about intervening.	Critical awareness of key lessons from the evidence and from experience For trained non-mental health service practitioners To include when not to become engaged in delivering psychosocial and psychiatric interventions

S4:d:7	Caring for responders to disasters and major incidents		Awareness of the psychosocial risks run by people who respond to disasters. The principles of supporting appropriately professional responders to disasters. Outline awareness of the current evidence for the effectiveness or otherwise of interventions to support professional responders after disasters.	
S4:d:8	Anticipated and pathological psychosocial reactions to severe stress	*Defining the range of people's reactions to stress in disasters*	The impacts of traumatic events (including displacement and asylum seeking) on families, children and older people and their common reactions to severe stress. This includes: d. Normal and pathological reactions to trauma and disaster; e. The common coping mechanisms that people of all ages use when faced with severe stress; f. Outline understanding of the impact of traumatic events on people's future psychosocial development; Cultural differences in coping.	The concept of primary and secondary stressors;

Section 5: The Disaster and Conflict environment

Non-medical concepts and subjects important for the understanding and management of catastrophes

(S5:a) Coordination and control of humanitarian actors, codes of practice

S5:a:1	UN Cluster system, sectoral issues	*Groupings of UN agencies, non-governmental organizations (NGOs) and other international organizations around a sector or service provided during a humanitarian crisis*	Lead organization (agency) concept UN agencies) The eleven clusters (sectors)	 Inter-Agency Standing Committee (IASC), Office for the Coordination of Humanitarian Assistance (UNOCHA) Protection, Camp Coordination and Management, Water Sanitation and Hygiene, Health, Emergency Shelter, Nutrition, Emergency Telecommunications, Logistics, Early Recovery, Education and Agriculture,
S5:a:2	Codes of practice for humanitarian workers	*Codes and agencies providing guidance for and assessment of standards in humanitarian practice*	Three important codes Evaluation of Humanitarian actions and accreditation of aid workers	Code of Conduct for the Red Cross/Red Crescent Movement & NGOs in Disaster Relief *People In Aid* Code of Good Practice in the Management and Support of Aid Personnel The SPHERE project (Humanitarian Charter & Minimum Standards in Disaster Response) Humanitarian Accountability Partnership International (HAP International) ALNAP (Active Learning Network for Accountability and Performance in Humanitarian Action) ELRHA (Enhanced Learning and Research for Humanitarian Assistance)

(S5:b) Humanitarian concepts, humanitarian law, human rights, ethics, gender issues				
S5:b:1	Humanitarianism	*An ethic of kindness, benevolence and sympathy extended universally and impartially to all human beings.*	The four underlying concepts: Humanitarian space Abuse of humanitarianism	Humanity Independence Impartiality Neutrality
S5:b:2	The Geneva Conventions especially those applicable to the Sick and Wounded	*Four treaties and three additional protocols that set the standards in international law for humanitarian treatment of the victims of war*.	Protected personnel The Geneva Emblem Humanitarian Law	 Geneva Protocols Equality of medical effort based on clinical need rather than any other consideration
S5:b:3	Ethics of humanitarian action	*The ethical principles underlying humanitarian activities*	Ethics of civilian humanitarian action Tensions in the humanitarian arena Conflict affected societies and humanitarian action Ethics of military humanitarian operations	Do no harm ethos
S5:b:4	Gender issues	*Identification and analysis of relationships between men and women, their roles, privileges, statuses and positions*	Roles of men and women in the societies affected Vulnerable groups Gender based violence	Impact on relief programmes (e.g. suitability and use of staff of different sexes)

(S5:c) Stakeholders: UN, NGOs, ICRC, host nation actors, donor nations, refugees/IDPS, military				
S5:c:1	Refugees & Displaced Persons	*Individuals who have been forced to flee their homes and have either crossed an internationally recognised border (refugee) or are still within the borders of their home state (IDP)*	Definitions of Refugee and IDP	*Refugee* – a person who "owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion, is outside the country of his nationality, and is unable to or, owing to such fear, is unwilling to avail himself of the protection of that country".[1] *IDP* – persons who have been forced or obliged to flee or to leave their homes or places of habitual residence, as a result of or in order to avoid the effects of armed conflict, situations of generalized violence, violations of human rights or natural or human-made disasters, and who have not crossed an internationally recognized State border
			Non-refoulement	A principle in international law, which concerns the protection of refugees from being returned to places where their lives or freedoms could be threatened.
			Wars, civil strife etc leading to displacement	• Internally Displaced Person • Refugees • Asylum seekers • Health implications of displacement • Ages and sexes of displaced
			Groups at risk	• Infants & Children <5Y • Nursing mothers • Pregnant women • The elderly
			Repatriation and re-settlement	

S5:c:2	Conflict & the care of detainees and POWs	*The Conventions governing the treatment of detainees and POWs* (See also Module 5:c1)	Geneva Conventions Health care of POWs and detainees Role of ICRC Ethnicity and healthcare	Relative to the Treatment of Prisoners of War Relative to the Protection of Civilian Persons in Time of War
S5:c:3	Host nations	*Rights and duties of nations in which disasters are or have occurred and in which humanitarian aid agencies are operating*	Relief commissions Role of ministries Co-ordination of humanitarian activities by host nation	 Links with UN, NGOs, military
S5:c:4	Agencies involved in relief work	*All those operational organisations whose work is based on the principle of humanity: to prevent and alleviate human suffering wherever it may be found … to protect life and health and to ensure respect for the human being*	International Supranational Governmental Intergovernmental NGOs Importance of co-operation Avoidance of duplication of effort Interoperability difficulties Co-ordination of humanitarian activities	
S5:c:5	Working with the military	*The role that military forces can and should play in relief operations in natural disasters and complex*	Complex humanitarian emergencies and the actors involved How military forces operate	 Military organisation - Chain of command Military doctrine

		emergencies		Peace support operations Post conflict stabilisation operations
			Military as aid workers	Military Relief Operations, CIMIC, Hearts and Minds
			Key documents	"*Sharing the Space*" Oslo protocol MDCA protocol Tswalu dialogue
			Erosion of separation between military and humanitarians	
			OCHA Continuum of Engagement	
			What humanitarians need from military forces	Secure environment, safe travel, removal of mines & UXO, safe water, logistic support, medical support
			Information sharing	
			Bilateral military assistance	
			UN peacekeeping operations	Links between UN forces and UN humanitarian agencies
			Role of NATO	
S5:c:6	Donors	*Sources of funding for humanitarian and development aid programmes*	Governmental	(e.g. DfiD, USAID, JICA, AusAid etc.).
			Multinational	(e.g. ECHO)
			Private Bilateral donations	
			Criteria & Governance by donors	
			Evaluation of programmes	
			Funding and applications	Log frames

(S5:d) Media				
S5:d:1	The media:	*Working with the media and in environments where the media are active.*	Policy for dealing with the media Managing the media National and international media - agendas Media training	 Use of Radio TV Newspapers Fliers Gossip net (churches, mosques, markets etc) Home base TV and other Media Individual reports Personal letters Briefs Visits Home-based media Identification of messaging / lines to take from HQ – must fit in with Mission. Images, titled and dated Liaison with journalists Arranging of co-ordinated visits Local media – local agendas Identification of key message from Mission team cleared through HQ – must fit in with Mission Inviting of influential figures and visit days Liaison with journalists Liaison with Ministry of Health / local govt Interviews and techniques

(S5:e) Chemical, biological, radiation and explosive hazards (CBRNE)				
S5:e:1	Environmental industrial hazards (EIH)	*Dangers resulting from large scale accidental releases of toxic industrial hazards (TIH) or from long term pollution of the environment, water supplies etc.*	Environmental pollution Nature of release What is affected	Types: Organic chemicals including pesticides, Heavy metals Continuous a different concentrations Catastrophic due to industrial accident Water, air, land and food chain
S5:e:2	Overlap between EIH and CBRNE		CBRN / EIH spectrum and the concept of CBRNE3 (Explosives, Environmental and Endemic)	Overlap between EIH and CBRN Signs of a deliberate release (CBRN) compared to natural or accidental
S5:e:3	Deliberate use of CBRNE agents	*Use of toxic chemicals, biological agents, nuclear weapons or radioactive materials as warfare agents or as instruments of terrorism*	Types of agents Delivery methods Properties	Chemical Nerve agents Irritants Choking agents Biological Bacteria Viruses Toxins Radiation Alpha, Beta, Gamma, X-ray, Neutrons Chemical Persistency Biological Lethal or incapacitating Infecting dose, incubation period, pathogenicity, transmissibility Radiation Acute radiation syndrome Local radiation injury
S5:e:4	Management of acute EIH/CBRNE incidents	*Methods for removing biological agents, chemicals or*	Safety Cordons	Personal protective equipment Hot / warm and cold zones

		radiation from individuals or the environment	Assessment Triage Casualty Hazard Management Treatment	Scene assessment (detect) Casualty assessment (diagnose) CBRN triage methods Contain Decontamination Isolation Quarantine Restriction of Movement Application of CABCDE to CBRN casualties Management of concurrent trauma Chemical ‘Toxidromes’ and pattern recognition Clinical investigations Supportive management Definitive management (antidotes) Biological Syndromic approach to biological agents Supportive and definitive management Use of antimicrobials, antitoxins, vaccines post-exposure Radiation Supportive management Management of acute radiation syndrome Replacement therapy Immunotherapy Stem cell and bone marrow transplant
(S:5:f) Management of specific types of or aspects of disasters				
S5:f:1	Disasters in the urban environment	*Increases in urban populations, especially in resource poor settings poses major challenges for*	Definitiions: Disasters and the rural environment	City, town, Urban agglomeration, Conurbation, Metropolitan area Recent emphasis on the rural environment.

		disaster reduction and disaster response	Urban and rural areas and disasters	• Urban and rural cannot be considered separately - most disasters impact both • Many links between both areas relevant to disasters
			Why consider urban areas?	• Concentration of: – population (over half the world's population now lives in urban areas) – homes and other buildings – transport infrastructure – industry • Problems and opportunities for disaster risk reduction and humanitarian assistance • Often more 'government' in urban areas • More market pressures • Low-income groups struggle to find jobs and affordable accommodation and health services
			Disaster risk in urban environment	• Environmental hazards • Disease (communicable & non-communicable) • Fires • Industrial/technological accidents • Crime The nature of urbanised areas magnifies many of these hazards
			Vulnerability in Urban Populations	• Inability/unwillingness of authorities to act • Living in high-risk areas - limited capacity to reduce risk • High-income nations: – Disasters - low loss of life, large economic loss • Low- and middle-income nations: – Disasters - large loss of life, lower economic loss (can be catastrophic due to poverty)
			Housing in deprived communities	• Provides family and social life, privacy and safety, place of work access to income and services • Location often more important than its size, quality or legality.

			Loss of housing exacerbates poverty Urban populations and poverty Making cities resilient	• Rehousing - relocation and loss of local contacts, familiar social structures, easy access to earning opportunities • Very large increase in urban poverty, mostly in low- and middle-income nations, in recent decades • ca. 1 billion urban dwellers live in poor-quality, overcrowded housing in slums or informal settlements (UN) • Urban poverty can dramatically increase premature deaths and serious injuries due to dangerous, overcrowded housing lacking infrastructure and services (Vulnerability). • Organization, coordination, funding
S5:f:2	Mass gatherings	*A large number of persons at a specific location for a specific purpose for a defined period of time, in numbers sufficient to strain the planning and response resources of the community, state or nation hosting the event*	Types Preparation Health risks and challenges Surveillance Response systems	Spontaneous Planned 1. One off 2. Recurrent different locations 3. Recurrent same location Detailed planning Infrastructure development institutional adaptation development of SOPs for a range of potential threats advance testing of plans, procedures, systems and personnel training

S5:f:3	Mass casualty events	*Events that generate more patients at one time than locally available resources can manage using routine procedures, and which require exceptional emergency arrangements and additional or extraordinary assistance*	Nature of event Response	Organised mass gathering Football matches, other sporting gatherings, religious events, airshows Spontaneous Riot Unexpected Road, rail, air crashes. Collision/sinking at sea, terrorist attack, building collapse, earthquake, tsunami, volcanic eruption Command and Control On site services specialist responders Emergency Medical Services Ambulances A&E departments Provision of hospital beds Fire Services Security Services SOPs Communications systems
S5:f:4	Dealing with the dead	*The health and other implications of dealing with the dead*	Health aspects Disposal of the dead Other key items	Role of deceased in transmission of disease Religious factors Different disposal methods Handling of cadavers Preparation of cadavers Legal Psychosocial Survivors Bereaved Emergency services Cultural

Section 6: Management and protection of teams and team members The core knowledge and understanding required to ensure the safe, efficient and effective operation of individuals and groups attending a disaster or supporting a society affected by conflict.				
(S6:a) Team formation and leadership				
S6:a:1	The principles of strategic leadership and management	*Taking overall responsibility for the strategic direction coordination and control of teams through planning and responding to the disaster or supporting a society affected by conflict.*	Strategic leadership and management in disaster scenarios Recognition and understanding of major relief agencies (Govt, IO, NGO) and their mandates. Mobilisation and utilisation of local community resources The importance of strategic leadership The role of strategic management - including ability to negotiate and co-ordinate within wider response Needs-led resource allocation and management in disaster scenarios (especially as regards healthcare) Equity	Basis and boundaries of strategic authority to prioritise and act, longer term planning Operating with own and host government, understanding culture and mission of agencies and importance of preservation of 'humanitarian space'. Assessing potential of local resources including logistics Seven Core Strategic Leadership Competencies 1. Direction, vision, mission, strategies and values 2. Alignment 3. Example and role model issues 4. Developing people at all levels 5. Effective communication 6. As change agents 7. Action in crisis and ambiguity. The 4 'Cs' - Command, Control, Coordination, and Computers (and up to date intelligence/information) Awareness of the strategic environment Needs assessment process, prioritization, allocation and logistics mechanisms/systems including stock security, storage requirements e.g. cold chain, inventory control and resupply. Concept of equity, ethics (utilitarianism/deontology)

				Local community engagement and security issues
			Coping with incomplete/limited resources and services	Managing scarcity and expectations of population, innovation, maximising safety/morale of team
			Setting priorities	Dynamic process to take account of changing situation in short, intermediate, and long term
			Essential supplies/equipment/drugs	Rapid and ongoing assessment process, action plan; Public Relations to avoid unsuitable/inappropriate donations of supplies etc.
			Proper reporting and documentation	Reporting/documentation system with clear policies and administrative support
S6:a:2	Leadership components	*The skills of and requirements for the leadership role*	Tactical/Team Leadership Role Leader Identification/Selection	Achieving the Task, Building and Maintaining the Team, Developing the Individual
			Qualifications	Leadership competencies (including communication skills, situational awareness/sensitivity awareness of group dynamics, conflict resolution, synergy and maintenance of good morale
			Recognition of early symptoms of psychological stress within the individuals/the team and its management	Stress – understanding occupational stress and specific stresses of the humanitarian work/environment Recognising signs of excessive stress, mental ill-health – anxiety, depression, PTSD; drugs/alcohol abuse, sexual relations
			Relationships with head office, other agencies, governments, military etc.	
			Hiring and firing	
S6:a:3	Human resources and Training	*Who to select, how to select them and what training may be needed*	Importance of human resources (HR) in dealing with disasters and societies affected by conflict	Determining HR requirements – team/local recruitment Matching numbers with needs of programme and qualifications required HR Plan – organisation chart

				Job profiles e.g. home visitors in a refugee programme Staff policies - terms and conditions Selection procedures Training – assessment of training needs & delivery Induction, supervision, co-ordination Evaluation/appraisal Specific issues – Refugee workers, health workers, expatriate staff e.g. in refugee programmes
(S6:b) Security				
S6:b:1	Personal & Group security	*Keeping the individual and the team safe from harm*	Types of hazard Awareness of hazards Briefings Booking in and out "Bounds and boundaries" Communications systems Risk avoidance	Road Traffic Accidents Mines, boobytraps and UXO (Unexploded ordnance) Firearms and cutting/stabbing weapons Radios and radio procedures Driver training and selection Defensive driving Environmental considerations (terrain, ice, road surfaces, volume of traffic etc.). Vehicle maintenance Vehicle equipment (fuel, food, water, spare parts, bedding, ropes, tools, spades, lighting, sand channels) Radios (VHF/Short wave), Knowledge of radio procedures

				Personal protective equipment Ballistic standard: Helmet Eye protection Torso, including high energy-exchange chest plates (Kevlar/ceramic) Fragment vest Neck collar Limb protection Genital protection NB above do not protect against shock wave effect
			Vehicles	Under-vehicle protection Kevlar/other armour for vehicle body
			Hostage taking	a) conduct on capture b) procedures on kidnap of group personnel
S6:b:2	First Aid	*The need of all involved in organisation to be able to contribute at a basic level to the main mission*	Emergency First Aid training	Train relevant individual team members Basic first aid Use of equipment supplied Training of local staff
			Provide appropriate first aid kits	Ensure contents are in date
S6:b:3	Field briefings	*Key topics that should be covered in pre-mission briefings*	Individual health and safety	Personal hygiene Drink/drugs Sexual behaviour Known risks Environmental Animals and plants Local diseases Security/threats Traffic Crime
			Key general topics:	Cultural, Social, Gender and Religious Political (Strategic and Local)

(S6:c) Planning, co-ordination, logistics, communications, administration, reporting,				
S6:c:1	Planning and resource allocation		Extent of problem Nature of problem Local abilities Other Agencies Priorities Planning stages Interface and co-ordination with Governmental bodies locally Interface with other NGOs	Role of health intelligence and on-site assessment Risk Assessment: What might happen? Surveillance: How will we know when it happens? Response: What will we do when it happens?
S6:c:2	Co-ordination		Co-ordination of teams Co-ordination with other agencies	
S6:c:3	Logistics	*A system whose purpose is to deliver the right supplies, in good condition in the quantities requested, in the right places and at the time they are needed*	Procurement Transport Storage	Sources Guidance from WHO/PAHO Supply Management System (SUMA) Problem interfaces: Dependence upon others for supplies – coordination essential Importation Customs Bureaucracy Corrupt officials Value of supplies Warehousing Protection of medical supplies

			Distribution Finances Accommodation Interpreters	Setting up transportation systems Cold chain management Offices & Accommodation
S6:c:4	Communication systems		Requirements Options	
S6:c:5	Reporting		Preparation and writing of reports Timings	Essential content Weekly, annual, final
(S6:d) Maintenance of the health of persons and teams including emergency care of team members (local & expatriate) and their medical evacuation				
S6:d:1	Maintenance of the health of staff groups	*Ensuring the physical and mental health of teams*	Awareness of specific hazards and briefings Selection of personnel Monitoring individual persons Who looks after the leader? Primary and secondary care of team members including procedures for their evacuation home.	Diet, water intake, rest and sleep, alcohol, drugs, sexual health Identifying people who are sufficiently at risk physically or psychosocially for their involvement in certain missions and events to be inappropriate Nominated individual responsible for compliance, ‘buddy’ system
S6:d:2	Personal protection against disease: general activities	*Measures to protect team members and the team as a whole against disease*	Prevalent/endemic diseases Pre-existing diseases	Universal precautions, protocols re needle stick injuries etc., what medicine are kept in ‘first aid kit’ expense and expiry dates

			Additional susceptibilities Education on avoidance Exclusion of persons who are at greater risk Current medications Vaccination Personal protection of water sources Domestic environmental health considerations The concept of primary, secondary and tertiary protection	
S6:d:3	Protection against vector borne diseases	*Measures to protect the individual team members and the team as a whole against vector borne disease*	Vectors Personal protection. Group protection.	Arthropods (insects, ticks, mites), rodents Bite avoidance, Nets and sprays, Chemoprophylaxis (Antimalarial and other prophylaxis, caveats and alternatives, Side effects of prophylactic agents) Clearance of static water, residual spraying, disposal of waste
S6:d:4	Water requirements per person per day	*Minimum volumes of water required to maintain health, ensure hygiene and for food preparation*	Quantity and quality • Survival • Basic needs Longer term needs Monitoring of intake Incremental requirements with climatic and work rate differences	Sphere minima

S6:d:5a	Psychosocial care for responders to disasters and major incidents: a). general principles	*Principles that impact on the requirements for providing psychosocial care for responders to humanitarian disasters and best practice in providing that care*	Awareness of the psychosocial risks run by people who respond to disasters. The nature of psychosocial resilience The principles of supporting appropriately professional responders to disasters. Outline awareness of the current evidence for the effectiveness or otherwise of interventions to support professional responders after disasters.	Examples include the NATO six level strategic stepped approach to psychosocial care for responders and the principles promoted by the Antares Foundation Importance of social support but avoidance of single session psychological debriefing (Cochrane review)
S6:d:5b	Psychosocial care for responders to disasters and major incidents: b). caring for oneself	*Activities to help team members to deal with the tensions inherent in, and common emergent stressors that arise when delivering humanitarian work in disasters*	The nature of psychosocial resilience: developing and sustaining one's own psychosocial resilience Personal psychosocial coping methods and preventative measures Awareness of the psychosocial risks for responders Self-awareness skills	Cross-refer to the section on 'The psychosocial and mental health implications of disasters' which is applicable to staff who respond to disasters and major incidents Coping with one's own distress without becoming immobilised Early recognition of risk to self
S6:d:5c	Psychosocial care for responders: c). caring for groups of people	*Activities to help team leaders and teams to deal with and reduce the impact of primary and secondary stressors on the emotional wellbeing, psychosocial needs and mental health of*	The nature of psychosocial resilience: developing and sustaining teams' collective psychosocial resilience Leadership and observation of teams Daily briefings/debriefings Imposition and maintenance of	Cross-refer to the section on 'The psychosocial and mental health implications of disasters' which is applicable to staff who respond to disasters and major incidents Importance and role of leadership but also the skills of being led

		responders	routines including those for: • Sleep and rest periods • Alcohol/drug misuse avoidance • Recreation • Links with home for all team members	