NATO HANDBOOK ON MEDICAL ASPECTS OF NBC DEFENSIVE OPERATIONS AMedP-6(B)

PART II - BIOLOGICAL

ANNEX D

PATIENT MANAGEMENT CHARTS

1 FEBRUARY 1996

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ANNEX D

PATIENT MANAGEMENT CHARTS

Table D-I. Differentiation Among Botulinum, Nerve Agent, and Atropine Intoxications

Item	Botulinum toxin	Nerve agent	Atropine
Sensorium	Usually normal.	Disorientation, agitation, coma, seizures.	DIsorientation, excitation, agitation, irritability, coma.
Ocular abnormalities	Dilated and fixed pupils, distorted blurred vision, ptosis, extraocular muscle paralysis.	Constricted pupils, dim vision (if vapor or aerosol exposure), little if any change if exposed via skin.	Weak effects if usual doses given causing pupillary dilation and paralysis of accommodation.
Paralysis	Flaccid paralysis. Early bulbar signs (dysphonia dysphagia) descending to upper and lower extremities. Respiratory failure.	Rigid paralysis with twitching, jerking. Seizures.	None of significance.
Autonomic findings	Dry mouth and skin, constipation, ileus, urinary retention. Early emesis and diarrhea after food ingestion.	Excess salivation, increased sweating, involuntary defecation and urination. Severe rhinorrhea and bronchoconstriction occur if exposure is by inhalation.	Dry mouth and skin, constipation, ileus, urinary retention. Early emesis and diarrhea after food ingestion.
Onset	24-36 hours by inhalation exposure. Not absorbed through intact skin; 12-72 hours onset by oral exposure.	1-10 minutes by inhalation exposure; 1-2 hours by dermal exposure.	Minutes after injection, can be exacerbated by dehydration and heat exposure.

A number of infectious diseases may be rapidly fatal if specific therapy is not immediately instituted. Crimean-Congo hemorrhagic fever may be readily transmitted to hospital personnel, with lethal consequences. The following algorithm (Figure D-I) is designed to prevent lethal oversight in the initial management of acutely ill febrile patients.

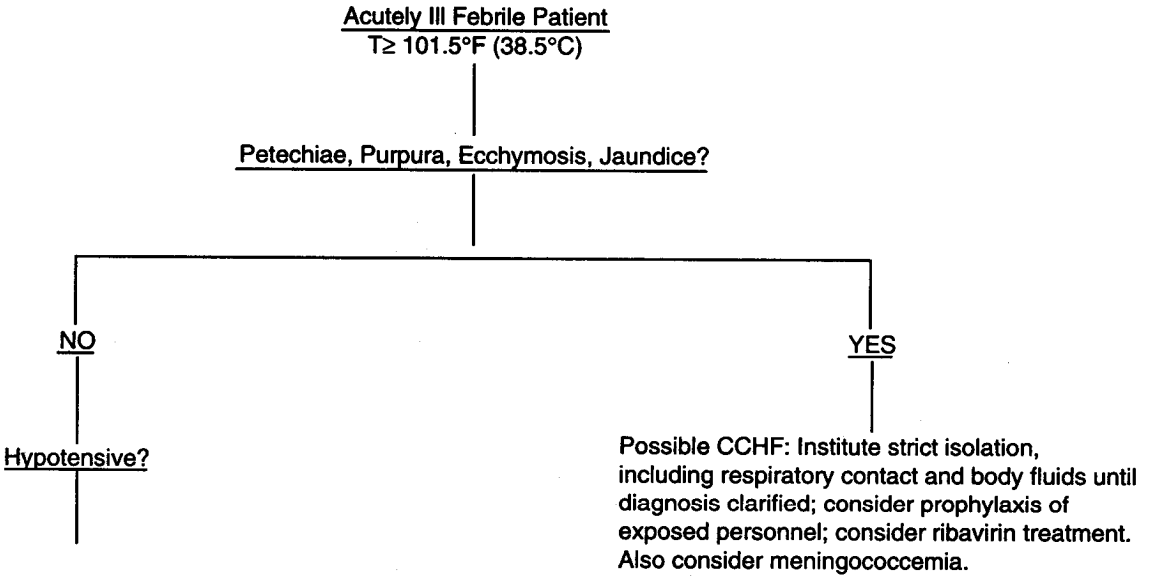

Figure D-I. Model for an Approach to the Acutely Ill Febrile Patient (Example from the Middle East) (1 of 6)

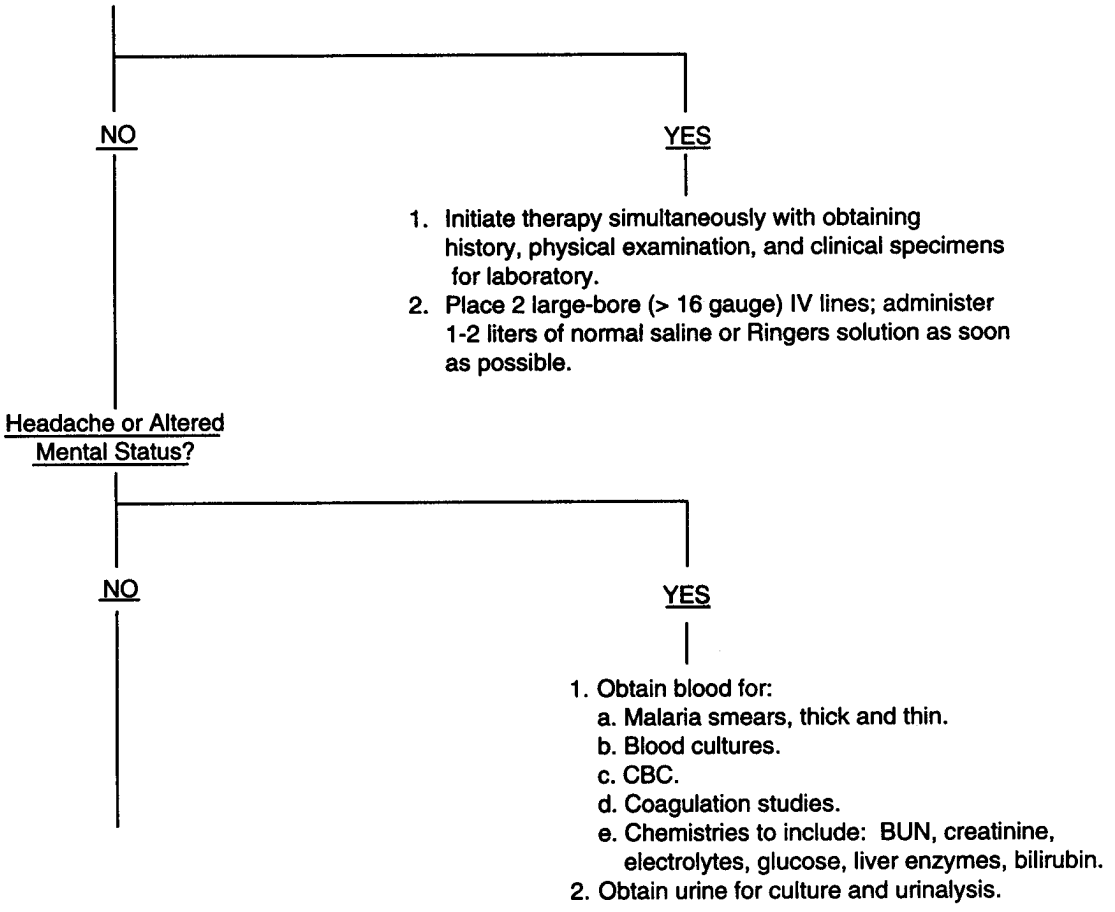

Figure D-I. Model for an Approach to the Acutely Ill Febrile Patient (Example from the Middle East) (2 of 6)

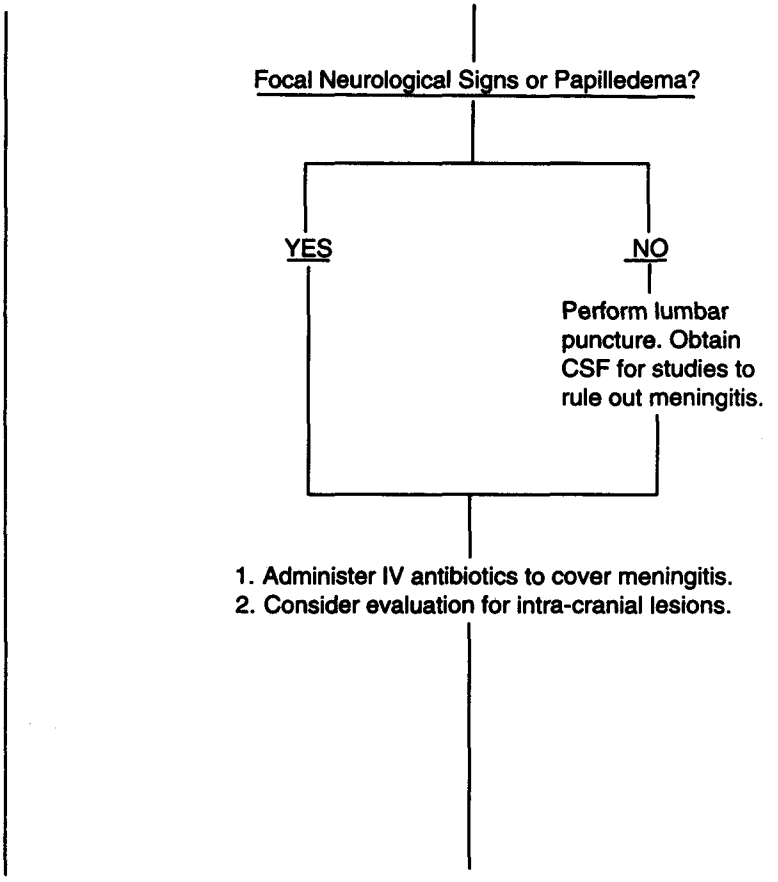

Figure D-I. Model for an Approach to the Acutely Ill Febrile Patient (Example from the Middle East) (3 of 6)

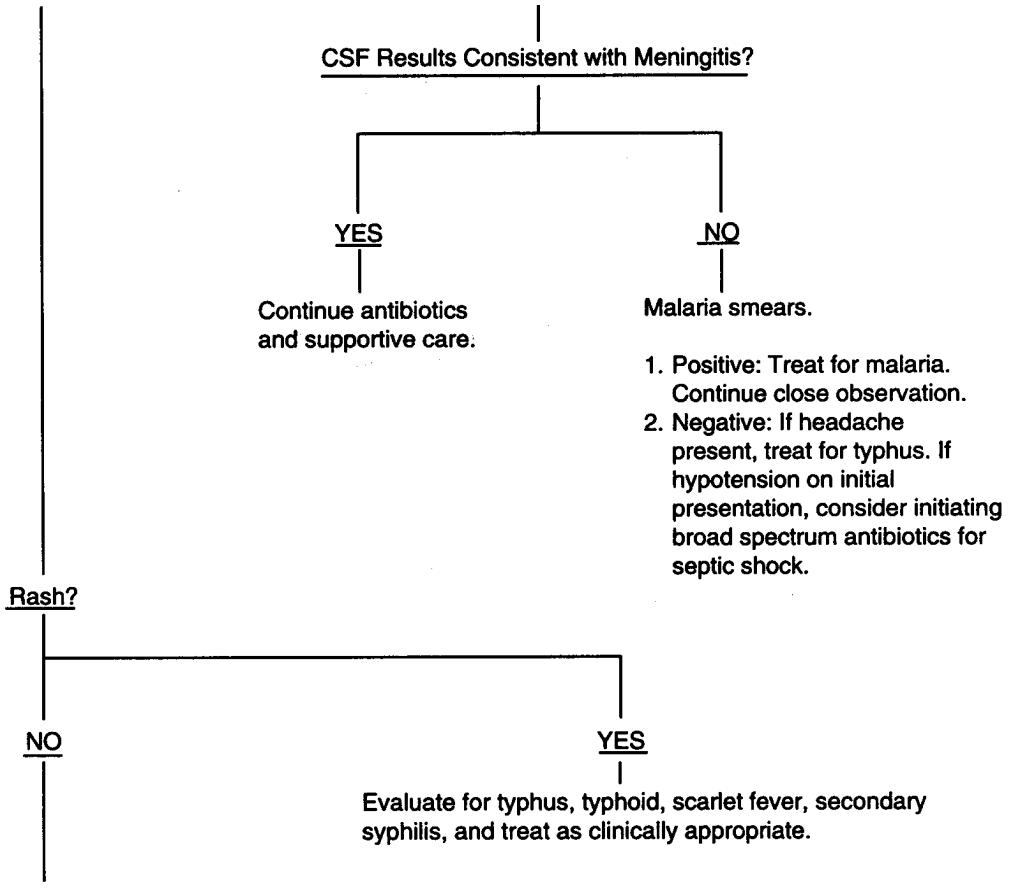

Figure D-I. Model for an Approach to the Acutely Ill Febrile Patient (Example from the Middle East) (4 of 6)

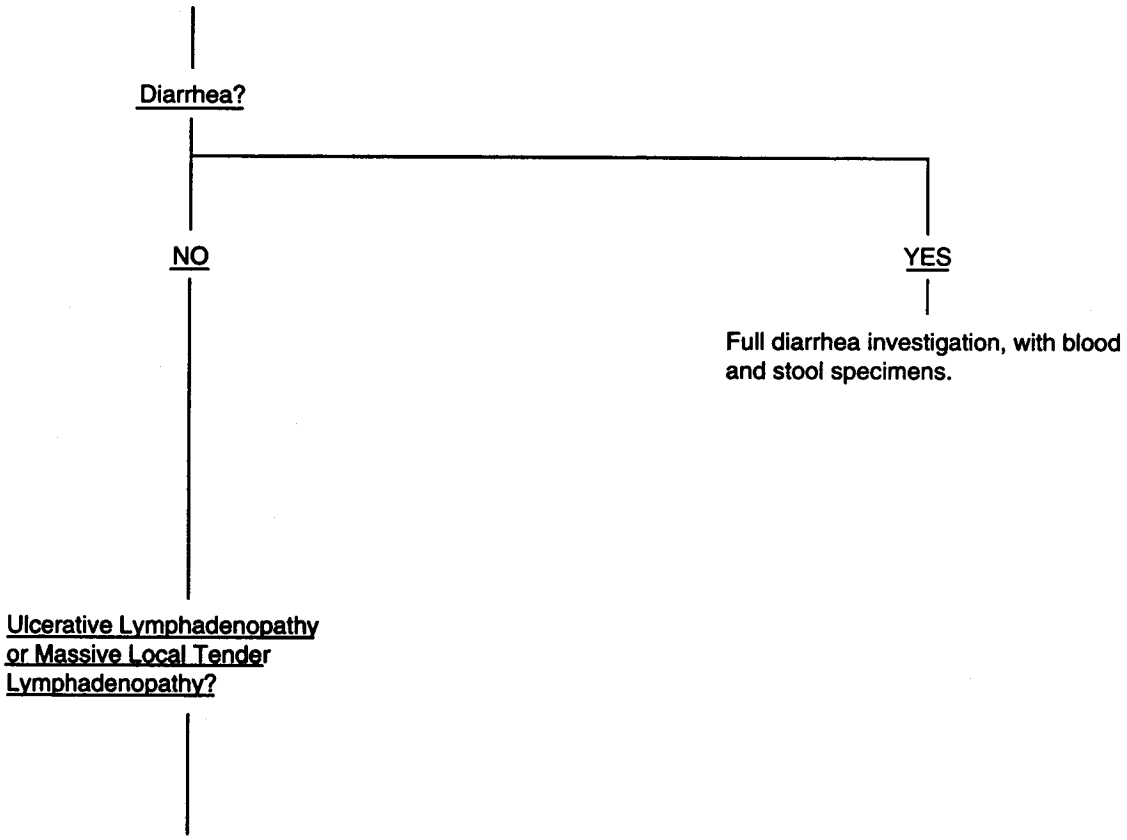

Figure D-I. Model for an Approach to the Acutely Ill Febrile Patient (Example from the Middle East) (5 of 6)

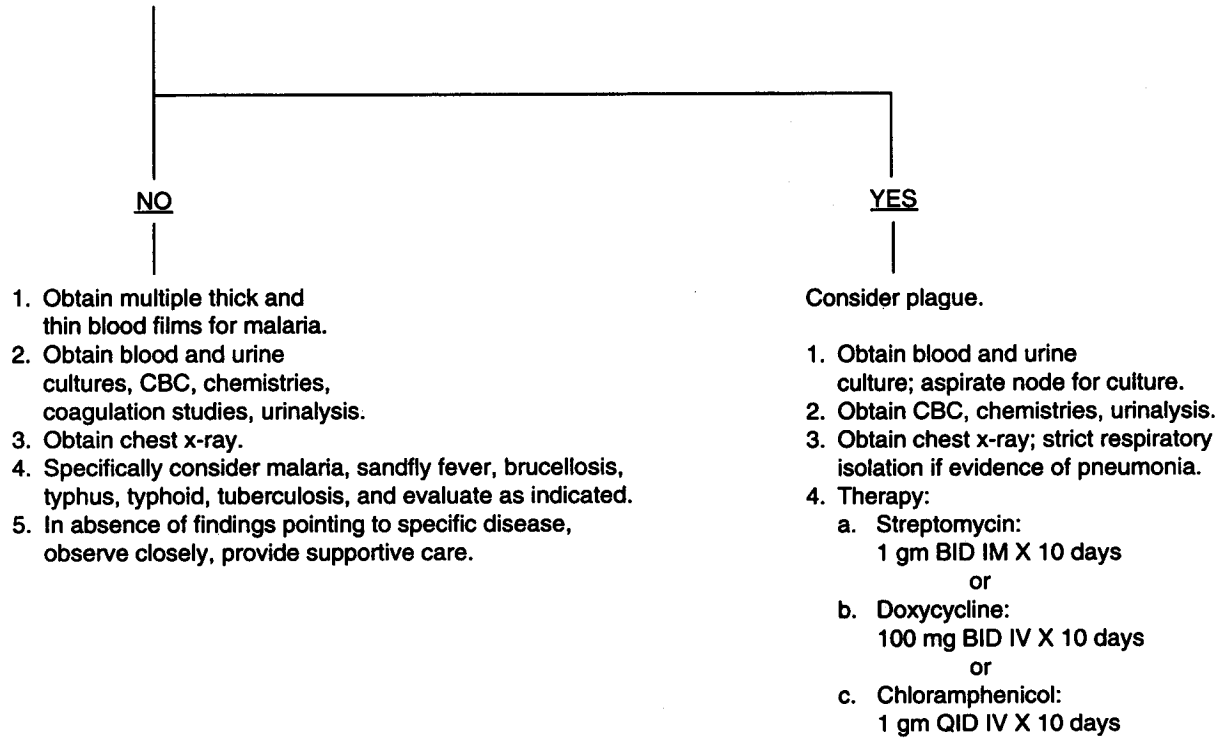

Figure D-I. Model for an Approach to the Acutely Ill Febrile Patient (Example from the Middle East) (6 of 6)

Table D-II. An Approach to Potential BW Agents by Predominant Clinical Finding or Syndrome

Syndrome	General characteristics	Potential causes*
Fever		Any (Toxins less likely)
Grippe-like	Fever, chills, malaise, headache, myalgia, eye pain, hyperaesthesias	Brucellosis Rift Valley fever Venezuelan equine encephalitis Q-fever Influenza Dengue fever Chikungunya fever Inhalation anthrax (early)
Pharyngitis	Sore throat, dysphagia, with or without fever	Lassa Botulinum toxins Ebola/Marburg Tularemia Trichothecene mycotoxins Ricin
Rash-maculopapular	All rash syndromes typically accompanied by fever	Rocky Mountain spotted fever Scrub typhus Epidemic typhus Ebola/Marburg Argentine hemorrhagic fever Bolivian hemorrhagic fever Dengue fever Chikungunya fever Tularemia (uncommon) Psittacosis (uncommon) Smallpox (early)
Rash-vesiculopustular		Smallpox Melioidosis Tularemia
Rash-granulomatous or ulcerative		Melioidosis Tularemia

Table D-II. An Approach to Potential BW Agents by Predominant Clinical Finding or Syndrome (Continued)

Syndrome	General characteristics	Potential causes*
Rash-petechial/ ecchymotic		Korean hemorrhagic fever Crimean-Congo hemorrhagic fever Rocky Mountain spotted fever Plague Smallpox (rare, fulminant) Argentine hemorrhagic fever Bolivian hemorrhagic fever Lassa Dengue fever Ebola/Marburg Rift Valley fever (infrequent) Omsk hemorrhagic fever Yellow fever Scrub typhus Epidemic typhus Trichothecene mycotoxins
Diarrhea-dysentery	Typically with fever	Shigella
Diarrhea-watery	With or without fever	Cholera Staphylococcus enterotoxin B Lassa Ebola/Marburg
Jaundice	With or without fever	Yellow fever Lassa Ebola/Marburg Toxins (especially aflatoxin)
Hemorrhagic fever	Fever; hypotension, with or without fever	Lassa Ebola/Marburg Crimean-Congo hemorrhagic fever Omsk hemorrhagic fever Argentine hemorrhagic fever Bolivian hemorrhagic fever Yellow fever Dengue fever Trichothecene mycotoxins Plague Korean hemorrhagic fever Rift Valley fever (infrequent)

Table D-II. An Approach to Potential BW Agents by Predominant Clinical Finding or Syndrome (Continued)

Syndrome	General characteristics	Potential causes*
Encephalitis/ encephalopathy	With or without fever	Eastern equine encephalitis Western equine encephalitis Venezuelan equine encephalitis Russian spring-summer encephalitis Argentine hemorrhagic fever Bolivian hemorrhagic fever Lassa Psittacosis Plague Rift Valley fever (infrequent)
Stiff neck syndrome	Typically with fever	Eastern equine encephalitis Western equine encephalitis Venezuelan equine encephalitis Psittacosis Histoplasmosis
Flaccid paralysis	Sensory paresthesias, flaccid weakness, cranial nerve abnormalities	Botulinum toxins Saxitoxin Tetrodotoxin
Oliguric renal failure	Typically with fever	Korean hemorrhagic fever Yellow fever Psittacosis (rarely)
Pulmonary syndrome	Pneumonia, respiratory insufficiency, respiratory distress; usually with f	Anthrax Tularemia Plague Psittacosis Q fever Histoplasmosis Coccidiodomycosis Influenza Omsk hemorrhagic fever Crimean-Congo hemorrhagic fever Korean hemorrhagic fever Ricin Staphlococcus enterotoxin B Botulinum toxin

Table D-II. An Approach to Potential BW Agents by Predominant Clinical Finding or Syndrome (Continued)

Syndrome	General characteristics	Potential causes*
Polyarthritis/ polyarthralgia	Typically with fever	Chikungunya fever
Rapid death syndrome	Death within minutes; fever may be present	Saxitoxin Tetrodotoxin Botulinum toxins Trichothecene mycotoxins Other toxins Chemical agents

* This list is crossed-referenced to Annex A, and is not intended to be comprehensive. It does not suggest that clinical presentation of a given agent will necessarily be that of a syndrome listed. This table should serve only as a guide; additional clinical findings must be considered in each case in an attempt to obtain a definitive diagnosis.