Revised 05/29/2020

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Free Living Ameba Case Report

Date of Report: _____

Demographics

Patient's Name (Last, First M.I.):			**Age (in years):**
Gender:	☐ Male	☐ Female	☐ Unknown
Ethnicity:	☐ Hispanic	☐ Non-Hispanic	☐ Unknown
Race:	☐ American Indian/Alaska Native	☐ Asian/Pacific Islander	☐ Black
	☐ Unknown	☐ White	☐ Other, specify: _____
County/ State of Residence: _____ / _____		**County/ State of Treatment:** _____ / _____	

Exposure History

County/State of Suspected Exposure: _____ / _____ Number of persons exposed (*if known*): _____

Source of possible exposure, if known (please check all that apply and provide best estimates of dates)**:**

Recreational Water Exposures ☐ Yes ☐ No ☐ Unknown **If yes,** please fill out which types.	**Type:**	**Date(s):**	**Type:**	**Date(s):**	**Type:**	**Date(s):**		
	☐ Canal	_____	☐ Private Club Pool	_____	☐ Community Pool	_____		
	☐ Lake	_____	☐ Private Home Pool	_____	☐ Apartment Pool	_____		
	☐ Pond	_____	☐ Fill-and-Drain Pool	_____	☐ Fountain	_____		
	☐ Ocean	_____	☐ Hotel Pool	_____	☐ Water Park	_____		
	☐ River/Stream	_____	☐ Spring (hot/cold)	_____				
	☐ Well	_____	☐ Spa/Hot tub/Whirlpool	_____				
	☐ Other, specify:_____		Date(s):_____					

Recreational Water Activities ☐ Yes ☐ No ☐ Unknown **If yes,** please fill out which types.	**Type:**	Yes	No	Unknown		Yes	No	Unknown
	Diving into water	☐	☐	☐	Snorkeling/Scuba diving	☐	☐	☐
	Inhaled water	☐	☐	☐	Swimming	☐	☐	☐
	Jumped into water	☐	☐	☐	Water sports (skiing etc.)	☐	☐	☐
	Swallowed water	☐	☐	☐	Wore nose clip or plugged nose when jumping/diving	☐	☐	☐
	Splashed water	☐	☐	☐	Other, specify:_____			

Nasal Irrigation ☐ Yes ☐ No ☐ Unknown **If yes,** please fill out which types.	**Type:**	**Date(s):**
	☐ Neti pot	_____
	☐ Squeeze bottle	_____
	☐ Shower nozzle	_____
	☐ Other, specify:_____	_____

Soil Exposures ☐ Yes ☐ No ☐ Unknown **If yes,** please fill out which types.	**Type:**	**Date(s):**	**Occupational Exposures** ☐ Yes ☐ No ☐ Unknown **If yes,** please fill out which types.	**Type:**
	☐ Gardening	_____		☐ Farmer/Rancher
	☐ Composting	_____		☐ Firefighter
	☐ Farm/Ranch	_____		☐ Lifeguard/Pool attendant
	☐ Other, specify: _____	_____		☐ Other, specify: _____

Travel history last 2 years: ☐ Yes ☐ No ☐ Unknown **If yes,** please specify in table below:

Locations:	**Date(s) (from–to):**

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Past Medical History

Please check all conditions/symptoms that patient has currently or has had within past 2 years:

Treatment/Drugs:		**HIV/AIDS:**			
☐	Illicit drug use, specify: _____	HIV	☐ Yes	☐ No	☐ Unknown
☐	Immunosuppressants	AIDS	☐ Yes	☐ No	☐ Unknown
☐	Radiation therapy	On Antiretrovirals	☐ Yes	☐ No	☐ Unknown
☐	Steroid use	CD4 count (per mm^3): _____			

Other Immunocompromised Conditions:			
☐	Alcohol misuse	☐	Diabetes mellitus
☐	G6PD deficiency	☐	Liver cirrhosis
☐	Malnourishment	☐	Pregnancy (recent)
☐	Renal failure	☐	Lymphoproliferative disease
☐	Systemic Lupus Erythematosus (SLE)		
☐	Cancer, specify: _____		
☐	Other hematologic disease, specify: _____		
☐	Other autoimmune disease, specify: _____		
☐	Organ transplant, specify: _____		

ENT/Respiratory:				**Other Conditions:**	
☐	Otitis	☐	Sinusitis	☐	Dermatitis
☐	Rhinitis	☐	Epistaxis	☐	Skin infection
☐	Broken nose	☐	Nasal surgery	☐	Eye infection
☐	Deviated septum			☐	Other, specify: _____

Current Illness

Date of illness onset: _____ Duration of illness: (in days): _____

Was patient admitted to hospital for current illness? ☐ Yes ☐ No ☐ Unknown

If yes, date of most recent hospitalization: _____ Duration of most recent hospitalization (in days): _____

If yes, other hospitalizations in the past 30 days: ☐ Yes ☐ No ☐ Unknown

Dates (from–to)	**Diagnosis**

History of Present Illness

Please provide a brief description of the patient's clinical course, prior to hospitalization:

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Signs/Symptoms

Vital Signs:

Temperature:_____ F / C Pulse:_____ bpm Respiration:_____ breaths/min BP:_____ mmHg

General:

	Duration (days)		Duration (days)
☐ Abnormal reflexes	_____	☐ Lethargy/fatigue	_____
☐ Anorexia	_____	☐ Myalgia	_____
☐ Back pain	_____	☐ Nausea	_____
☐ Cough	_____	☐ Shortness of breath	_____
☐ Disorientation	_____	☐ Stiff neck	_____
☐ Fever	_____	☐ Vomiting	_____
☐ Headache	_____	☐ Weight loss	_____
☐ Other general symptom/sign, specify: _____			_____

Visual:

	Duration (days)
☐ Blurred vision	_____
☐ Diplopia	_____
☐ Photophobia	_____
☐ Other visual changes, specify: _____	_____

Neurologic:

	Duration (days)		Duration (days)		Duration (days)
☐ Altered mental status	_____	☐ Cranial nerve VI deficit	_____	☐ Hemiparesis	_____
☐ Altered sense of smell	_____	☐ Cranial nerve VII deficit	_____	☐ Hyperreflexia	_____
☐ Altered sense of taste	_____	☐ Cranial nerve XII deficit	_____	☐ Loss of balance	_____
☐ Aphasia	_____	☐ Decerebrate posturing	_____	☐ Numbness	_____
☐ Ataxia	_____	☐ Decorticate posturing	_____	☐ Nystagmus	_____
☐ Behavioral change	_____	☐ Dysphagia	_____	☐ Seizures	_____
☐ Coma	_____	☐ Facial numbness	_____	☐ Upgoing toes	_____
☐ Combativeness	_____	☐ Fixed or dilated pupils	_____	☐ Weakness	_____
☐ Confusion	_____	☐ Hallucinations	_____		
☐ Other cranial nerve deficit, specify: _____	_____			☐ Other neurologic deficit, specify: _____	_____

Skin Lesions: ☐ Yes ☐ No ☐ Unknown **If yes,** please specify in table below:

Lesion type	Anatomic location	Size	Number	Duration (days)
Ulcers				
Plaques				
Erythematous nodules				
Other				

Other Symptoms/Signs:

☐ Other, specify: _____

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Diagnostic Tests: Note please provide dates when possible. If date not available, provide hospital day (i.e. CSF tap on Hosp. Day 2)

General CSF Testing:

CSF	Date: _____	Date: _____	Date: _____
	Results	**Results**	**Results**
Opening pressure (mmH_2O)			
WBC count (per mm^3)			
RBC count (per mm^3)			
Neutrophil %			
Monocyte %			
Lymphocyte %			
Bands %			
Eosinophil %			
Protein (mg/100ml)			
Glucose (mg/100ml)			

Diagnostic Testing:

When was laboratory testing performed? ☐ Antemortem ☐ Postmortem ☐ Both ☐ Unknown

Pathogen	Tissue type	Test method	Detected pathogen?
Acanthamoeba			☐ Yes ☐ No ☐ Did not test
	Bone		☐ Did not test
		Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
		Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
		Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
		Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
	Brain		☐ Did not test
		Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
		Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
		Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
		Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
	CSF		☐ Did not test
		Visualized amebas on wet mount or stained CSF	☐ Yes ☐ No ☐ Did not test
		Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
		Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
	Eye		☐ Did not test
		Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
		Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
		Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
		Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
	Lung		☐ Did not test
		Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
		Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
		Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
		Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
	Sinus		☐ Did not test
		Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
		Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
		Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
		Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
	Skin		☐ Did not test
		Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
		Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
		Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
		Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test

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Other tissue type		☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
Serology performed?		☐ Yes ☐ No ☐ Did not test
	Positive titer?	☐ Yes ☐ No ☐ Did not test
	If yes, specify titer: _____	
Balamuthia		☐ Yes ☐ No ☐ Did not test
Brain		☐ Did not test
	Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
	Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
	Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
	Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
CSF		☐ Did not test
	Visualized amebas on wet mount or stained CSF	☐ Yes ☐ No ☐ Did not test
	Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
	Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
Sinus		☐ Did not test
	Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
	Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
	Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
	Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
Skin		☐ Did not test
	Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
	Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
	Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
	Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
Other tissue type		☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
Serology performed?		☐ Yes ☐ No ☐ Did not test
	Positive titer?	☐ Yes ☐ No ☐ Did not test
	If yes, specify titer: _____	
Naegleria fowleri		☐ Yes ☐ No ☐ Did not test
Blood		☐ Did not test
	Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
	Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
	Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
	Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
Brain		☐ Did not test
	Visualized amebas by nonspecific staining	☐ Yes ☐ No ☐ Did not test
	Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
	Immunohistochemistry (IHC)	☐ Yes ☐ No ☐ Did not test
	Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
CSF		☐ Did not test
	Visualized amebas on wet mount or stained CSF	☐ Yes ☐ No ☐ Did not test
	Indirect immunofluorescence (IIF)	☐ Yes ☐ No ☐ Did not test
	Polymerase chain reaction (PCR)	☐ Yes ☐ No ☐ Did not test
Other tissue type		☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
	Specify testing: _____	☐ Yes ☐ No ☐ Did not test
Serology performed?		☐ Yes ☐ No ☐ Did not test
	Positive titer?	☐ Yes ☐ No ☐ Did not test
	If yes, specify titer: _____	

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Diagnostic Imaging:

Was diagnostic imaging performed? ☐ Yes ☐ No ☐ Unknown

If yes, what imaging was performed? ☐ CT ☐ MRI ☐ Unknown

If yes, was imaging abnormal? ☐ Yes ☐ No ☐ Unknown

If yes, please send imaging report to bjt9@cdc.gov using an encrypted email service or fax to 404-471-8364.

Treatment:

Surgical resection: ☐ Yes ☐ No ☐ Unknown

Medications: (please check all that apply**)**

☐ Acyclovir	☐ Fluconazole	☐ Rifampin
☐ Albendazole	☐ Flucytosine	☐ Steroid, specify_____
☐ Amphotericin B	☐ Isoniazid	☐ Streptomycin
☐ Amphotericin B lipid complex	☐ Itraconazole	☐ Sulfonamide, specify_____
☐ Amphotericin B liposomal	☐ Ketoconazole	☐ Sulfadiazine
☐ Azithromycin	☐ Mannitol	☐ Topical chlorhexidine
☐ Ceftriaxone	☐ Metronidazole	☐ Trimethoprim/sulfa
☐ Ciprofloxacin	☐ Miconazole	☐ Voriconazole
☐ Chloramphenicol	☐ Miltefosine	☐ Other, specify_____
☐ Clarithromycin	☐ Ornidazole	☐ Other, specify_____
☐ Dexamethasone (or other steroid)	☐ Pentamidine	☐ Other, specify_____
☐ Ethambutol	☐ Pyrimethamine	☐ Other, specify_____

If you checked any of the medications listed above, please list below with the start and stop dates, dosages, and route of administration.

Medication	Start date:	Stop date:	Dose Range	Route of Administration

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Outcome:

Survived? ☐ Yes ☐ No ☐ Unknown

If survived, residual neurologic deficits? ☐ Yes ☐ No ☐ Unknown

If yes, please describe neurologic deficits: _____

Date of discharge: _____ OR Date of death: _____

If died: Cause of death:

☐ Brain death
☐ Cardiorespiratory failure
☐ Herniation
☐ Removed life support
☐ Other, specify: _____

If died: Organs transplanted? ☐ Yes ☐ No ☐ Unknown

If yes, which organs: _____

Please provide a brief description of the patient's clinical course, complications, and any additional comments:

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Final diagnosis:

☐ GAE (*Acanthamoeba* spp.)
☐ Disseminated acanthamoebiasis
☐ Acanthamoeba rhinosinusitis
☐ Cutaneous acanthamoebiasis
☐ GAE (*Balamuthia mandillaris*)
☐ Disseminated balamuthiasis
☐ Balamuthia rhinosinusitis
☐ Cutaneous balamuthiasis
☐ PAM (*Naegleria fowleri*)
☐ Other, specify: _____

1st DASH #	
2nd DASH #	
3rd DASH #	
4th DASH #	
5th DASH #	
List additional DASH #s:	

Case report citation 1	
Case report citation 2	
List additional case citations	

Calculated durations:
Incubation period (days): _____
Illness Onset to Admission (days): _____
Illness Onset to Death (days): _____
Exposure to Death (days): _____
Clinical Stage at presentation: _____