

CHARACTERISTICS

Synonym or Cross Reference	Candidiasis, thrush, Candida clausenii, Candida langeronii
Disease	Opportunistic pathogen in humans, as it can cause disease in immunodeficient and immunocompetent individuals that can be life threatening. The most frequent clinical form is thrush/oral candidiasis. Women can be infected with vaginal candidiasis.
Morphology	It is an encapsulated and diploid polymorphic fungus belonging to the family Candidaceae.
Zoonosis	None

RISK GROUP & CONTAINMENT REQUIREMENTS

ABSL-2	For all procedures utilizing infected animals.
BSL-2/BSL-2+	For all procedures involving suspected or known infectious specimen or cultures, work in a BSC unless otherwise approved and stated in lab-specific manual.
Risk Group 2	Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available.

LABORATORY HAZARDS

Primary Hazards	Accidental parenteral inoculation, direct exposure of the skin to the pathogen.
Sources	Samples described in IBC protocol. Epithelial scrapings or exudates from lesions; sputum; bronchoalveolar lavage; blood
Lab Acquired Infections (LAIs)	Low risk of infection to laboratory worker

PERSONAL PROTECTIVE EQUIPMENT

Additional Precautions	Additional PPE may be required depending on lab-specific SOPs and IBC Protocol.
Minimum PPE Requirements	Lab coat, disposable gloves, safety glasses, closed toed shoes, long pants.

SPILL PROCEDURES

Large	Immediately notify all lab personnel and clear the area. Remove any contaminated PPE/clothing before exiting the lab. Lock all entry doors, post warning signage, and deny entry. Call DPS (213-740-4321) and ask to notify EH&S. Inform the PI and/or Lab Manager/Supervisor as soon as possible.
Small	Notify all lab personnel lab. Remove contaminated PPE and don new PPE. Cover spill area with absorbent material and add fresh 1:10 bleach:water. Allow 20 minutes (or as directed) contact time. After 20 minutes, clean up and dispose of materials.

VIABILITY

Disinfection	Use 10 % dilution of household bleach (minimum 0.3% sodium hypochlorite) for 20 to 30 minutes, or an acceptable time approved by IBC and EH&S.
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VIABILITY

Survival Outside Host	Can survive on inanimate surfaces for 24 hours to 120 days, on palms for about 45 minutes, and distilled water at room temperature. C. albicans was isolated from bed-sheets, cots, and wash-basins of nurseries. Can survive on drying in darkness for 5 hours, and 1 hour if also exposed to light.
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HEALTH HAZARDS

Host Range	Humans
Incubation Period	Unknown
Infectious Dose	Unknown
Modes of Transmission	Patient’s own flora. Rare nosocomial transmission has also been reported to occur from inanimate surface, from hands of health care workers, or between patients.
Signs and Symptoms	Thrush/oral candidiasis is characterized by single or multiple, ragged white patches; vaginal candidiasis is characterized by thick, curd like discharge (leucorrhea), eruption and itching of vulva.

EXPOSURE PROCEDURES

Medical Follow-up	Visit USC’s designated healthcare provider. Bring a copy of this PSDS.
Mucous Membrane	Flush eyes for 5-10 minutes at eyewash station.
Other Exposures	Immediately wash affected area with soap and water for 15 minutes.
Reporting	Immediately report incident to supervisor, notify EH&S, and complete Manager’s Report.

MEDICAL PRECAUTIONS/TREATMENT

Prophylaxis	Fluconazole used for infections in HIV-infected patients. Note: Prolonged exposure is associated with emergence of fluconazole-resistant strains.
Surveillance	Monitor for symptoms of infection.
Treatment	Administer proper drug therapy. Eliminating predisposing factors such as administration of antibiotics, steroids, and immunosuppressants; humidity, local maceration, vaginal pH, removal of infected catheter can help in resolving infections.
USC Requirements	Immediately report any exposures to Environmental Health & Safety.
Vaccines	None available

REFERENCES

BMBL http://tiny.cc/cdc-bmb1	Canadian PSDS http://tiny.cc/canada-aspergls-psds
CDC https://www.cdc.gov/	NIH Guidelines http://tiny.cc/nih-bio-secure
Virginia Tech http://tiny.cc/vt-psds	Montana State University http://tiny.cc/msu-psds

