Alberta Health Services

Public Health
Central Zone

Scabies Testing

Date: Friday, March 08, 2019 16:30pm

To: Central Zone Family Physicians

CC: Infection Prevention Control; Environmental Public Health; Workplace Health & Safety; Prov. Lab; Labs; CZMA; CZ MOH

From: Dr. Digby Horne, Medical Officer of Health – Central Zone

Subject: Skin Scraping and Burrow Ink Test for Scabies Testing

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Dear Colleague:

As part of the follow-up of the scabies outbreak associated with the Red Deer Hospital ICU, it is possible that you may see patients requiring investigation for scabies.

Two tests which may be of assistance are a skin scraping and a burrow-ink test.

Please find attached a description of how to perform both tests. Please note that mineral oil, black paper, and microscope slides are not essential for the skin scraping test. Any sterile container can be used to collect skin scrapings, e.g, urine specimen. Please also find enclosed a sample Prov. Lab requisition Form 0039 showing which fields need to be completed, including the EI number associated with this outbreak. Blank requisitions can be found at www.ahs.ca/frm-ch-0039.pdf

Letters notifying patients exposed in the ICU and their physicians are in the process of being distributed.

Please report patient cases you diagnose to the Medical Officer of Health on-call: 403-356-6430. AHS staff cases should please be reported to 1-855-450-3619 ext.3.

Thank you for your attention and assistance.

Enclosures

Office of the Medical Officers of Health, Alberta Health Services – Central Zone
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www.ahs.ca/czmoh

Appendix B

Skin scraping

Skin scrapings are done to achieve laboratory confirmation of a scabies infestation. They may be done by a dermatologist or a trained professional. A 'negative' result does not always imply that mites are not present; as with any communicable disease, lab results must be collaborated with clinical presentation.

Equipment:

1. Gloves
2. Magnifying glass
3. Light source
4. Alcohol swabs
5. #15 scalpel blades
6. Glass slide

Procedure:

1. Shoulders, back and abdomen are choice areas in the elderly. Other sites: hands, wrists, elbows, feet, ankles, buttocks, axillae, knees, thighs and breasts
2. Use magnifying glass to identify recent burrows or papules. A bright light and magnifying glass will assist in visualizing the mite (tiny dark speck) at the end of the burrow
3. Explain the procedure to the resident and perform hand hygiene
4. Using an alcohol swab scrub the area to be scraped for 30 seconds and allow to air dry
5. Apply a single drop of mineral oil over unexcoriated burrow
6. Don gloves
7. Scrape non excoriated, non-inflamed areas (burrows) 6-7 times with a #15 scalpel blade until tiny specks of blood appear. The mineral oil will emulsify the scrapings
8. Using the blade put the emulsified scrapings on a slide; cover the slide with a cover slip
9. Send covered slide with a completed requisition to the ~~Cadham~~ Prov. laboratory for diagnostic purposes

Burrow Ink Test (BIT)

The BIT can be used as an alternative to skin scrapings to assist with the diagnosis of scabies. It is less invasive and does not require professional training to perform. The ink test does not always identify the presence of scabies mites (which occasionally appear as a tiny dark dot at the end of a track), but it can help illuminate the tracking caused by the mite as it burrows. As with any diagnostic test, results must be collaborated with clinical presentation.

Equipment:

1. Gloves
2. Alcohol swabs
3. Dark colored washable wide-tipped marker

Procedure:

1. Explain the procedure to the resident and perform hand hygiene
2. Use a the marker to 'color' over areas of suspected burrows
3. Wipe off ink with alcohol swabs or alcohol based hand rub and disposable towel

The alcohol will remove the most surface ink but will not remove the ink taken up by the burrow, thus leaving a dark <u>irregular</u> (often zig-zag) line illuminating the burrow track(s). If the resident has straight lines that take up ink these may be due to scratching and not the presence of burrowing mites.

Alberta Health Services

Culture and Serology Requisition
Microbiology and Public Health

Provincial Laboratory for Public Health
University of Alberta Hospital,
8440 - 112 Street, Edmonton, AB T6G 2J2
Phone: (780) 407-7121 Fax: (780) 407-3864

PHN / Healthcare Number | Pt. Hosp. # | Lab Accession #

☐ Copy to
Name ____
Physician Code ____
Address ____

☐ M ☐ F Patient Legal N

Address

Chart #

Sample

ill Type CPL OR ☐ Alberta Health Care
☐ Company OT ☐ Out of Prov
☐ Pre-paid PB ☐ Patient Bill

Co. name ____
Address ____
Client # ____

Ordering Physician/Practitioner | Physician Code
Ordering Address/Location | Report Location Code
Report address if different

Specimen Event Type
IA ☐ Auxillary
IP ☐ Inpatient
OP ☐ Outpatient
AP ☐ Ambulatory
HC ☐ Home Care
ST ☐ Staff
EN ☐ Environ
WCB ☐ Worker's Comp

Comments
2019-EI-132

Date specimen collected *(dd-mm-yy)*

Time (24 h)

Test Status
☐ Routine
☐ Priority
☐ STAT

Specimen Type

Body Fluid
☐ Blood
☐ CSF
☐ Bone marrow
☐ Urine
☐ Gastric washings
☐ **Other (*specify)** ____

Respiratory
☐ Auger suction
☐ Bronchial alveolar lavage
☐ Bronchial washing
☐ Bronchial brush
☐ ETT
☐ Nasopharynx
☐ Nose
☐ Sputum
☐ Other (*specify) ____

Wound/Skin/Surgical
(Specify site)
☐ Abscess
☐ Aspirate
☐ Biopsy
☐ Bone chip
☐ IV tip
✓ Skin scraping
☐ Tissue
☐ Wound Swab
☐ Other (specify) ____

Genital
☐ Cervix
☐ Urethra
☐ Vagina
☐ Other (specify) ____

Gastrointestinal
☐ Feces
☐ Emesis
☐ Other (specify) ____

Bacteriology
☐ Bordetella pertussis
☐ Chlamydia trachomatis
☐ Clostridium difficile
☐ Culture / Sensitivity
☐ G C Screen
☐ Legionella Culture
☐ Mycobacterium (TB) culture
☐ AFB smear only
☐ Mycoplasma culture
☐ Other *(specify)* ____

Molecular Diagnostics*
☐ specify ____
*Consult laboratory

Parasitology
☐ Ova and Parasites
☐ Direct examination
✓ Other *(specify)* Scabies

Mycology
☐ Fungus culture / exam
☐ Other *(specify)* ____

Virology
Culture and Identification
(complete box A and E on reverse)
☐ Culture ☐ DFA
☐ Electron microscopy
☐ Other *(specify)* ____

Serology

Viral

Hepatitis
(complete box A and D on reverse)
☐ HAV IgM
☐ HAV IgG *(Immunity)*
☐ HBV DNA*
☐ HBsAg
☐ HBs Ab *(Immunity)*
☐ HBc Ab
☐ HBc IgM
☐ HBeAg
☐ HBe Ab
☐ HCV Ab
☐ HCV RNA RT-PCR*
☐ Other *(specify)* ____

**Consult Lab before submitting request*

HIV *(complete box F on reverse)*
☐ HIV Ab
☐ Other *(specify)* ____

Miscellaneous
(complete box A on reverse)
☐ CMV Ab IgG
☐ CMV Ab IgM
☐ EBV Monospot
☐ EBV VCA IgM
☐ EBNA IgG
☐ HSV IgG
☐ Measles IgG
☐ Measles IgM
☐ Mumps IgG
☐ Mumps IgM
☐ Parvovirus B19 IgG
☐ Parvovirus B19 IgM
☐ Rabies
☐ Rubella IgG *(complete box B on reverse)*
☐ Rubella IgM *(complete box B on reverse)*
☐ Varicella Zoster IgG
☐ Varicella Zoster IgM

Bacterial

Streptococcal
☐ Anti-DNase B

Syphilis
(complete box C on reverse)
☐ DFA-Tp
☐ RPR
☐ Syphilis Serology
☐ VDRL

Other
(complete box A on reverse)
☐ Brucella
☐ Chlamydophila pneumoniae
☐ Chlamydophila psittaci
☐ Diphtheria
☐ Francisella
☐ Legionella
☐ Leptospira
☐ Lyme disease
☐ Mycoplasma pneumoniae
☐ Rickettsia
☐ Tetanus
☐ Yersinia
☐ Other *(specify)* ____

Fungal
(complete box A on reverse)
☐ Aspergillus sp.
☐ Blastomyces sp.
☐ Coccidioides sp.
☐ Histoplasma sp.
☐ Other *(specify)* ____

Parasite Serology
(complete box A on reverse)
☐ Cysticercosis
☐ Echinococcus
☐ Strongyloides
☐ Toxoplasma IgG
☐ Toxoplasma IgM
☐ Other *(specify)* ____

Complete patient information on reverse

Box A – Patient History

☐ Asymptomatic

Patient Status

☐ Normal ☐ Immunocompromised patient
☐ Neonate ☐ Malignant disease
☐ Pregnant ☐ Organ transplant
☐ Injection drug user (IDU)
☐ Organ donor
☐ Other *(specify)* ____________________

Antimicrobial / Antiviral in use ____________________

Recent travel (country) ____________________

Please complete the following sections as the information provided determines which tests are performed

Date of onset D D M M M Y Y   Previous blood sent? ☐ Yes ☐ No

Signs and Symptoms *(check and add where appropriate)*

General	☐ fever ☐ fatigue	☐ weight loss ☐ night sweats	
Rash	☐ macular ☐ erythema multiforme Other *(specify)* ______	☐ petechial / purpuric ☐ vesicular	☐ papular ☐ ulcers
Neurological and Musculoskeletal	☐ headache ☐ confusion ☐ arthritis Other *(specify)* ______	☐ seizures ☐ arthralgia ☐ meningitis	☐ myositis ☐ encephalitis ☐ myalgia
Gastrointestinal	☐ nausea / vomiting ☐ chronic liver disease Other *(specify)* ______	☐ acute hepatitis ☐ jaundice	☐ diarrhea
Genito-urinary	☐ hemorrhagic cystitis Other *(specify)* ______		
Hematologic	☐ hemolytic anemia ☐ lymphadenopathy ☐ splenomegaly Other *(specify)* ______	☐ marrow aplasia ☐ thrombocytopenia	
Miscellaneous	☐ conjunctivitis ☐ myocarditis ☐ abortion Other *(specify)* ______	☐ effusion (site) ☐ pericarditis ☐ intrauterine growth retardation	

Box B – Rubella Serology

Immune status ☐ Yes ☐ No
Rash or other acute symptom(s) ☐ Yes ☐ No
Previous immunization ☐ Yes ☐ No ☐ Unknown

Box C - Syphilis Serology

☐ Prenatal ☐ Suspect
☐ Visa ☐ Follow up
Previous Lab #: ____________________

Box D – Hepatitis

(Also complete Box A)

Previous hepatitis results

	POS	NEG
HAV IgG	☐	☐
HAV IgM	☐	☐
HBV specify ______	☐	☐
HBsAg	☐	☐
HCV Ab	☐	☐

	Yes	No
Needlestick	☐	☐
Other exposure	☐	☐
Post-transfusion	☐	☐
Hep. immunization	☐	☐

Box E - Specify Request(s)/Comments

Box F - *Please indicate **all** conditions which apply*

Clinical

Previous HIV test
☐ Positive
☐ Negative
☐ Never done
☐ Unknown
Date / Lab # of last HIV test ____________________

☐ Symptoms suggestive of AIDS/HIV ☐ Opportunistic infections
☐ Kaposi's sarcoma ☐ Other malignancies
☐ Other ____________________

Non-Medical/Non-Public Health

(Third Party – separate fee applies)
☐ Visa
☐ Insurance
☐ Foreign pre-employment requirement
☐ Participate in research study