Southern Community Laboratories

CONSULTATION FEEDBACK

Requirement for appropriate clinical details on requests for microbiological testing – Southern Community Laboratories post-consultation decision and process changes

On 13th April 2018 we distributed a consultation document among our referrers outlining a proposal to limit microbiology testing to samples where appropriate clinical details are supplied.

We have received feedback from nine practitioners / departments. All feedback was distributed among our group, discussed, and considered.

Largely the feedback was supportive. However, there were some areas of concern raised including:

1. The time specimens without clinical details will be stored for before discarding
    a. Specimens are held for seven days either at room temperature or at 4°C (depending on the specimen type); however, some microbiology specimens may not be considered viable to process after they have been stored for > 72 hours
2. Request forms having inadequate space for complete referrer details and clinical details
    a. We will be reviewing our request forms
    b. We are also in discussion with the DHB around their request forms
3. Where information about testing not proceeding will go to
    a. The main issue here is around who is the referrer (particularly in the hospital setting) – the consultant or the junior medical or nursing staff filling out the request form
    b. This is unresolved but underlines the importance of education around laboratory practices and minimum expected standards of communication by the referrer
4. Screening for sexually transmitted infections
    a. Testing for chlamydia and gonorrhoea will not require clinical details

Decision and future policy changes

Following review of the consultation feedback we plan to do the following:

1. Introduce the policy (with some exceptions outlined below) of requiring relevant clinical details on requests for microbiological testing (including infectious molecular tests)
2. Policy introduction will be 30th July 2018
3. During July we will append a comment onto all microbiology requests received without clinical details reminding referrers that the change will be made on 30th July
4. Education for all referrers
5. Post-implementation feedback and review of processes (ongoing)

Exceptions:

1. **Precious specimens**

   Specimens that are defined at as precious are:

   - CSF
   - BAL fluid / aspirates / bronchoscopy specimens / induced sputa
   - Tissue biopsies
   - Joint aspirates
   - Bone marrow aspirates
   - Other aspirates, e.g. abscess material obtained e.g. in radiology
   - Blood cultures, when antibiotic therapy has subsequently been initiated
   - Post mortem specimens

   Please note, relevant clinical details should still be provided with these specimens and will greatly assist the laboratory with processing.

2. **Screening tests for chlamydia and gonorrhoea**

   This will not apply for those patients ineligible for publicly funded healthcare. While testing of symptomatic patients is funded regardless of eligibility, asymptomatic screening is unfunded and the patient will need to pay for testing.

Over the next few weeks we hope to meet with clinical departments and ward nurses to discuss the process changes. We would also like to meet with as many primary care practitioners as possible. We encourage primary care to be in touch if they would like to meet with us; we are happy to provide education sessions.

Please contact Dr Arlo Upton if you would like to discuss these changes further.

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Appendix one: Examples of specimens, common clinical details, and appropriateness of microbiological testing

Specimen	Clinical details	Testing	Notes
Urine	Dysuria	Yes	
	Frequency	Yes	
	New onset delirium	Yes	
	Confusion	No	
	Smelly	No	
	Pre-op all but urology	No	
	Pre-op urology	Yes	
	Pregnant – screening	Yes	
	Non-pregnant – screening	No	
	Routine	No	
	Flank pain	Yes	Good to include whether or not the patient may have pyelonephritis
	Cloudy urine	No	
	Dipstick result only	No	If no other clinical details suggestive of UTI
Wound / skin swab	Impetigo	Yes	
	Boil	Yes	State whether or not recurrent
	Cellulitis	Y/N	Only if breach in skin. State site
	Wound infection	Yes	State antibiotics patient on, site. Site is critical to interpreting cultures
	Routine	No	
	Chronic leg ulcers	Y/N	Only if state surrounding cellulitis
Vulvovaginal swab	Discharge	Yes	
	Itch	Yes	
	Routine	No	
	? PID	No	Test for CT/NG
	Pre-termination of pregnancy	Yes	
Faeces	Please see overleaf		
Community blood cultures	Cellulitis	No	Almost never useful
	Pneumonia	No	Almost never useful
	Possible SBE	Yes	Three sets from different venepunctures required
	Fever – unexplained	Yes	Recent travel important – state on form when and where
	? pyelonephritis	Y / N	If septic
	? Biliary sepsis	Yes	
	Possible meningococcal infection	Yes	
Fungal skin & nails	Onychomycosis	Yes	Include clinical diagnosis, site, current and previous treatment.
	Tinea	Yes	Include clinical diagnosis, site, current and previous treatment.

Appendix two: Faeces / stool sample testing

In the vast majority of cases, acute diarrhoea is mild and self-limiting and investigation or treatment are not required. Testing is indicated if [1-3]:

- Diarrhoea is severe
- Diarrhoea persists beyond 5-7 days
- Bloody stools
- Recent overseas travel and fever or ongoing diarrhoea (please indicate where and when)
- Immunocompromised
- Require hospitalisation
- Outbreak suspected
- Groups at increased risk of transmitting infection to others[1]
    - food handlers
    - staff or residents of health care, residential care, social care or early childhood facilities whose activities increase risk of transferring infection via the faecal-oral route
    - children under the age of 5 attending early childhood services/groups
    - other adults or children at higher risk of spreading the infection due to illness or disability

To enable appropriate laboratory investigation, it is essential that relevant clinical details are provided on the laboratory referral form. Relevant details include the presence and duration of symptoms, recent travel (where and when) or shellfish ingestion, recent antibiotic or chemotherapy use, and history of immunocompromise. Laboratory testing of faecal samples is by multiplex PCR. Where clinical details suggest a particular infection, samples are also cultured for pathogens that are not included in the multiplex PCR panel. If the sample is being sent to document clearance of a specific organism, it is essential that this is documented on the form as this will determine the laboratory method used.

A single fresh faecal sample is sufficient to investigate an episode of acute diarrhoea. For practical purposes, the laboratory will not accept repeat samples within 14 days unless it is clearly documented on the laboratory referral form that the original illness resolved and that the patient subsequently relapsed. For ova and parasite examinations in returned travellers, three samples collected on separate days are required; travel history, including timing and destinations is essential.

[1] Ministry of Health. 2012. Communicable Disease Control Manual. Available from: https://www.health.govt.nz/system/files/documents/publications/communicable-disease-control-manual-may18-v3.pdf

[2] Hewison CJ and Heath CH. Stool culture. *Australian Family Physician,* 2012; 41 (10): 775-779. Available from: https://www.racgp.org.au/afp/2012/october/stool-culture/

[3] bpac[NZ]. 2008. Laboratory Investigation of Infectious Diarrhoea. Available from: https://bpac.org.nz/resources/campaign/diarrhoea/id_poem.asp?page=1

Appendix three: Examples of specimens, common clinical details, and appropriateness of molecular testing

Specimen	Clinical details	Testing	Notes
Viral swabs	Vesicular rash	Yes	Include site
	Conjunctivitis	Y/N	Ophthalmology only
	? Hand, Foot and Mouth	No	Enterovirus PCR is not recommended for the diagnosis of Hand, Foot and Mouth; this is usually a clinical diagnosis
	?Orf	No	The use of ORF virus PCR testing for diagnosis of ORF infections is not recommended. Diagnosis is made clinically
	?Warts/HPV	No	The use of HPV DNA testing for genital wart diagnosis is not recommended because test results are not confirmatory and do not guide genital wart management. Diagnosis is usually made clinically, or by biopsy if the diagnosis is uncertain.
	?EBV	No	EBV PCR is not performed on throat swabs. Request serology
Respiratory viral testing	Influenza-like illness (ILI) ILI is defined as: New onset fever +/- other systemic symptoms (malaise, myalgia, headache) **AND** At least one new onset respiratory symptom of: cough, sore throat, shortness of breath Include the justification for testing on the request form	Y/N	To assist with removal of patients from isolation. Only perform if the patient is likely to still be an inpatient in isolation when the result is available. To diagnose nosocomial influenza infection. This will assist with infection control precautions to manage further transmission. In patients where empiric oseltamivir treatment has been initiated. This should be considered in those at high risk of complications: e.g. pregnant, morbidly obese, and the immunocompromised. To identify potentially novel strains: recent (week prior) travel to East or South East Asia
	Bronchiolitis ?RSV	No	Testing is by antigen detection to enable cohorting
	Pneumonia ?viral Include the justification for testing on the request form	Y/N	Testing should only be performed if: 1) In ICU OR 2) Immunocompromised OR 3) Pregnant OR 4) Empiric oseltamivir initiated OR 5) Antibiotic therapy will be stopped if a virus is detected A sputum sample is preferred over a nasopharyngeal swab, if available
	Exacerbation of asthma or COPD	No	

Specimen	Clinical details	Testing	Notes
Atypical pneumonia testing	Pneumonia Include details re possible relevant exposures, e.g. gardening, overseas travel	Yes	Testing should only be performed if radiological evidence of pneumonia in hospitalised patient AND: 1) In ICU OR 2) Immunocompromised OR 3) Failing monotherapy OR 4) Risk factors for *Legionella* (gardening, overseas travel) or *Chlamydia psittaci* (bird fancier) infection OR 5) Overseas travel in last month A lower respiratory tract sample is required for testing (e.g. expectorated or induced sputum, tracheal aspirate, BAL). Nasopharyngeal swabs are NOT suitable
CSF PCR	?Meningitis	Yes	Will only be performed if >5 white cells (corrected for red cells) in the CSF, or in children <6 months where parechovirus can often be detected in the absence of a leucocytosis
	?Encephalitis Please include treatment details and other evidence of the diagnosis on the request form.	Yes	Will be performed if >5 white cells (corrected for red cells) in the CSF and/or raised CSF protein. If the CSF is normal, this will only be performed if there remains a high index of suspicion of encephalitis: 1) On acyclovir 2) MRI or EEG changes
HBV viral load	Seronegative	No	Hepatitis B PCR testing is not indicated if there is no serological evidence of hepatitis B virus infection
	As part of the initial evaluation of new diagnosis	Y / N	Only eAg negative patients
	In untreated patients	Y / N	Only in patients with ALT > ULN for >6 months
	In patients treated with nucleoside analogues	Yes	Every 3-4 months during first year of treatment and then 6-12 monthly thereafter
	In patients ceasing treatment with nucleoside analogues	Yes	At the cessation of treatment and at 3, 6 and 12 months post-treatment
	Pregnancy and chronic HBV	Yes	

Specimen	Clinical details	Testing	Notes
HCV viral load	New diagnosis (HCV antibody reactive with no evidence of past RNA testing)	Yes	
	Following diagnosis including positive RNA test where either history and/or liver tests suggest recent / acute infection – typically three months after the first RNA	Yes	
	12-week following end of therapy with Viekira Pak – i.e. test of cure	Yes	
	Antibody reactive, past RNA negative patient who has a documented (on request form) history of on-going risk (i.e. IVDU) – up to annual RNA tests	Yes	
	Monitoring	No	
	Repeat testing pre starting treatment	No	If no genotype in the previous 5 years then this should be repeated pre treatment
CMV viral load	Monitoring post solid organ or haematopoietic stem cell transplant	Yes	Only as part of a defined monitoring regimen post-transplant
	?CMV disease post solid organ or haematopoietic stem cell transplant	Yes	
	Other	No	
EBV viral load	Monitoring post solid organ or haematopoietic stem cell transplant for post-transplant lymphoproliferative disorder (PTLD)	Yes	Only as part of a defined monitoring regimen post-transplant
	? PTLD post-transplant	Yes	
	Other	No	