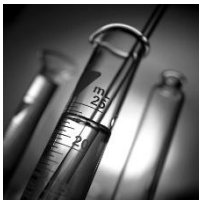
pathlab



July 2019

Feedback from Consultation on Pre-requisite Clinical Details on all Microbiology Samples

Feedback from the consultation document **"Clinical details as a pre-requisite for all microbiology samples"** (*available on Pathlab website*) was reviewed by the clinical microbiologists and senior staff in the microbiology department. We have decided to trial this policy across the region with a start date of **2nd September 2019.**

The feedback received centred around the following areas and is summarised below:

- **"The clinical details are not reviewed anyway"**
  At present all request forms for microbiology testing are reviewed by one of the microbiology staff members. For those samples that undergo bacterial culture, the request form is reviewed at various stages throughout the testing process, including a final time by a senior scientist or clinical microbiologist at the authorisation stage.

- **"Can such a policy not be implemented within the electronic requesting system?"**
  Yes, acquisition of clinical details at the time of the electronic request is the direction that we would like to go in. We will work with the IT department with a view to making the clinical details field a mandatory part of the electronic requesting process. There is also further potential for asking specific clinical questions, depending on the test type, but we will need to balance this against the time and effort required to complete the electronic request form.

- **"There may be cases where clinical details are not included for confidentiality reasons"**
  There are strict rules around confidentiality for all staff performing laboratory testing. Laboratory staff have the same tight regulations around confidentiality as any other healthcare worker.

- **"The rules around microbiology testing are too complex"**
  The last few years have been a transition period for the microbiology department, as we have sought to optimise diagnostic and antimicrobial stewardship for different specimen types, e.g. stool samples, vaginal swabs, ear swabs. We acknowledge that some of the new testing protocols, although entirely reasonable from a clinical point of view, take a while to get used to from a practical perspective. We always have a reasonable lead-in period to any new protocol and testing guides are available on the Pathlab website. We hope that by having clinical details pre-requisite for all microbiology samples (as opposed to certain sample types), it will remove any uncertainty as to what is required from the requestor.

How will the process work?

Every request form which includes a microbiology test will be reviewed by one of the microbiology staff, with further review by one of the senior scientists or Clinical Microbiologists if necessary.

CLINICAL UPDATE

If a request is received without clinical details, it will be registered, stored, and a comment will be returned immediately to the requestor along the lines of *"This sample has been received by the laboratory for microbiological testing. However, no relevant clinical details have been provided. The sample has not been tested and has been stored. Please provide clinical details to the laboratory within 72 hours to allow processing of the sample.*

From early August 2019, there will be a "lead-in period" to ensure as far as possible that all requestors are aware of the policy coming into place. During this period, a comment will go onto microbiology results reminding requestors that from **2nd September 2019**, microbiology tests will not be performed until clinical details have been provided.

What are the exceptions to this policy?

Clinical details will not be pre-requisite for "difficult to obtain", or "critical" specimens, e.g. theatre samples (including minor surgery), blood cultures, cerebrospinal fluid (CSF) and other sterile site fluids, in/out "catheter" specimens from infants and young children, and bladder aspirates. Clinical details are still strongly recommended in such sample types.

Clinical details will not be pre-requisite for samples coming from the community for molecular (PCR) testing. We would like to look at this as a separate project early next year.

Post-consultation change

One change has been made to the appendices following the consultation. **Sputum samples from the hospital or hospital OPC setting without any clinical details will not be accepted.** The appendices explaining how we will deal with the main sample types (wound swabs, urines, sputa) are attached to this clinical update for your reference.

Further feedback

The aim is to implement this policy as smoothly as possible. By having clinical details on all microbiology requests, it will enable the laboratory to ensure best practice testing has taken place, as outlined in the consultation document. A further clinical update will be released just prior to the implementation of this policy.

Please feel free to make any further comments you may have on this policy, either before or during the implementation phase.

CLINICAL UPDATE

Many thanks

Michael Addidle
Clinical Microbiologist

Vani Sathyendran
Clinical Microbiologist

Murray Robinson
Lead of Speciality, Microbiology

Please ensure all members of your institution receive a copy of this clinical update.

Appendix A: Superficial Wound Swabs

Identifying and managing infection in wounds is an important aspect of clinical practice. However, many issues relating to the aetiology of infection and the sampling of wounds remain controversial, with limited expert consensus.

The diagnosis of wound infection is essentially a clinical diagnosis, with laboratory testing used to provide further information to guide management, particularly when the use of systemic antibiotics is deemed appropriate.

It is generally only necessary to swab a wound if there are clinical signs of infection and the wound is deteriorating, increasing in size or failing to heal. Swabbing a wound that is not infected results in the unnecessary identification and analysis of organisms which are colonising the wound, rather than causing an infection.

The table below outlines what we would regard as acceptable and unacceptable clinical details:

Acceptable clinical details	**Unacceptable clinical details**
<u>Symptoms</u> • **New or increased pain** • **Swelling** • **Erythema** • **Purulent exudate** • **Localised warmth** • **Systemic signs (fever, tachycardia etc.)** **<u>Diagnoses/Clinical Scenarios</u>** **(when clinically infected)** • **Post-surgical wounds** • **Bite wounds** • **Superficial burns** • **Penetrating wounds** • **Diabetic foot infections** • **Skin grafts** • **Extensive eczema** • **Extensive impetigo** • **Cellulitis (only if associated skin break/wound)** • **Infected wounds that have not responded to standard management.**	• **No clinical details** (i.e. blank or just test request) • **Chronic wounds/ulcers** These chronic lesions are inevitably colonised with bacteria, so the positive predictive value of the culture result is low. These samples will **only** be accepted if accompanied by specific clinical details suggesting infection. • **Peri-anal and groin wounds** These are also low yield due to high contamination rate with enteric flora. These samples will **only** be accepted if accompanied by specific clinical details suggestive of infection. • **Unlabelled Site** Normal colonising flora differs at different sites of the body. If the site is unknown, the importance of isolated bacteria cannot be properly assessed.

References

- BPAC guidelines: Microbiological assessment of infected wounds: when to take a swab and how to interpret the results. Available from: https://bpac.org.nz/BT/2013/June/infected-wounds.aspx
- International consensus Update 2016, International wound infection Institute: Wound Infection in Clinical Practice: Principles of Best Practice. Available from: http://www.woundinfection-institute.com/wp-content/uploads/2017/03/IWII-Wound-infection-in-clinical-practice.pdf
- Benjamin A et al. Antimicrobial stewardship in wound care: a Position Paper from the British Society for Antimicrobial Chemotherapy and European Wound Management Association, JAC Vol 71, Nov 2016, Pages 3026–3035. Available at https://doi.org/10.1093/jac/dkw287

Appendix B: Urine Samples

The laboratory receives over 500 urine samples per day for microbiological testing. Often there are few clinical details on this particular sample type to provide a rationale for testing. Clinical details are particularly important amongst patient cohorts who have a high prevalence of asymptomatic bacteriuria such as older people, rest home residents, patients with long term urinary catheters. Reporting by the microbiology laboratory of urine culture results in patients who do not have specific symptoms drives unnecessary antibiotic prescribing and increased antibiotic resistance.

A brief summary of the patient's specific symptoms, accompanied by any other useful information such as pregnancy, immunocompromising conditions, current antibiotics, allergies, etc. all contribute to how the sample is processed in the laboratory, what susceptibilities are performed and how the result is reported back to the requestor.

Acceptable clinical details	Unacceptable clinical details
Symptoms • **Dysuria / Frequency** • **Incontinence** • **Fever** • **Confusion (increased or new)** • **Flank pain** • **Suprapubic pain** • **Abdominal pain** • **Haematuria** **Diagnoses/Clinical Scenarios** • **Cystitis** • **Pyelonephritis** • **Sepsis** • **Delirium** • **↑PSA** • **Prostatitis** • **Pelvic inflammatory disease (PID)** • **Pregnant** • **Urology pre-op** • **Gynae pre-op** • **Post-renal transplant**	• **No clinical details** (i.e. blank or just test request) • **Smelly urine** • **Cloudy urine** • **Concentrated urine** • **Dipstick result only** • **Routine** • **Monitoring** • **Screening (unless pregnant)** • **Pre-op (except Urology/ Gynae)** • **Previous UTI? clearance** • **Catheter urine – with no evidence of systemic symptoms**

"?UTI"/"UTI" or similar **will** be accepted for testing. However, this is essentially a diagnosis as opposed to relevant clinical details and we strongly discourage this practice. The patient's specific symptoms should be stated as detailed above. This helps the laboratory decide between an uncomplicated and complicated UTI and whether the upper renal tract may be involved. These decisions affect which antibiotics are tested, whether an antibiotic is interpreted as susceptible or resistant and which susceptibility results are reported back to the requestor.

References

- Choose Wisely, The New Zealand Microbiology Network. Available from, https://choosingwisely.org.nz/professional-resource/nzmn/
- SIGN 88 Management of suspected bacterial urinary tract infection in adults. Available from, https://www.sign.ac.uk/assets/sign88.pdf , Sections 1.4, 1.5
- Ninan S et al; Investigation of suspected urinary tract infection in older people BMJ 2014; 349 :g4070. Available from, https://www.bmj.com/content/349/bmj.g4070

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Appendix C: Sputum Samples

Bacterial culture of sputum samples suffers from both poor sensitivity and specificity, leading to sub-optimal antimicrobial stewardship. Sputum samples undergo initial Gram stain evaluation, looking for the presence of leucocytes and epithelial cells, which will dictate whether the sample is suitable for culture. However, even with this preliminary step, the yield of pathogens from sputum samples is very low. Specificity is also poor because positive culture results may represent normal nasopharyngeal tract flora.

The following table shows the clinical circumstances in which sputum samples sent to the laboratory will be deemed acceptable or unacceptable:

Acceptable Clinical Details		**Unacceptable Clinical Details**
Hospital (incl. OPC)	**Community**	**Community**
• All respiratory symptoms or diagnoses **Sputum samples from the hospital/OPC with no clinical details or details unrelated to the respiratory system will not be accepted.**	• Infective Exacerbation of COPD *(recommended only if failing empiric therapy or resistant organism suspected)* • Exacerbation of bronchiectasis • Bronchiectasis monitoring (no more than every six months) • Immunocompromised patients • Failure to respond to initial antibiotic therapy • Pneumonia *(guidelines suggest moderate to severe cases only)* • Haemoptysis • Specialist request	• None • Cough/Productive cough • Acute bronchitis • Screening • Monitoring • "COPD"

In summary, sputum samples on immunocompetent patients from the community who simply present with cough with no other complicating factors will **not** be accepted. International guidelines do not support the use of sputum cultures in non-hospitalised patients with acute bronchitis or mild community acquired pneumonia.

References

- BPAC guidelines: Community Acquired Pneumonia https://bpac.org.nz/BPJ/2012/August/pneumonia.aspx
- NICE Guidelines: Community Acquired Pneumonia https://pathways.nice.org.uk/pathways/pneumonia#path=view%3A/pathways/pneumonia/assessment-of-community-acquired-pneumonia.xml&content=view-node%3Anodes-microbiological-tests
- Australia and NZ guidelines for the management of COPD 2018 https://copdx.org.au/wp-content/uploads/2019/02/COPDX-V2-56-Dec-2018-Web.pdf

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