

# Internal Quality Assurance Framework

## Microbiology

The Royal College of Pathologists of Australasia received funding from the Department of Health, under the Quality Use of Pathology Program (QUPP) to develop a comprehensive framework for internal quality assurance, focused on the morphological disciplines of Histopathology, Cytopathology, Haematology and Forensic Pathology. The overall governance of this project was provided by the College, and was supported by a Steering Committee that included representatives of the morphological disciplines. The Board of Education and Assessment and the Board of Directors further decided to develop separate discipline specific Frameworks.

The Microbiology IQA Framework contains activities that will aim to help monitor performance, drive improvement and provide a collaborative on-going professional practice process. The IQA Framework activities focus on peer-review and clinical audit and require documented evidence of a pathologist's involvement in these internal quality activities. The Framework is practice based and the Microbiology Advisory Committee provided guidance with the development of the Microbiology Framework activities.

Implementation of the Microbiology IQA Framework will be undertaken in 2017 in consultation with the Fellowship.

For any queries about the Framework or the project, contact the DCEO, Dr Bronwen Ross at [bronwenr@rcpa.edu.au](mailto:bronwenr@rcpa.edu.au)

## **Framework Features**

The Internal Quality Assurance framework divides laboratory activities into 3 specific cycles:

1. *Pre-analytic* phase of the test cycle includes specimen delivery and accessioning, specimen handling and laboratory technical processing.
2. *Analytic* phase of the test cycle, in the current context, relates to the pathologist diagnostic component.
3. *Post-analytic* phase of the test cycle begins with report authorisation through to report delivery, and may include adjunct activities such as billing.

The Framework records these activities under 2 sections:

**Section 1:** Diagnostic Measures (the analytic phase) relates to peer review activities, participation in 10 hours per annum required.

**Section 2:** Technical Laboratory Measures (pre-analytic) and Service Performance (post analytic/overview) relate to clinical audit activities, participation in 10 hours per annum recommended.

Please refer to the tables on the following pages for information on examples of suitable activities and further document requirements.

**FRAMEWORK**  
Internal Quality Assurance Activities  
**MICROBIOLOGY**

**Section 1: DIAGNOSTIC MEASURES - (engaging in peer review activities)**

**Requirement: Minimum 10 hours per annum Diagnostic Measures**

Activity	Quality activity monitor related	Suggested document requirements
<p><b>Case Reviews</b></p> <p>Using clinical audit techniques</p>	<ul style="list-style-type: none"> <li>• <u>Internal random case review</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Defined % of cases</li> </ul> </li> </ul>	<p>Document the review type</p> <ul style="list-style-type: none"> <li>- Who performed the review</li> <li>- What was reviewed</li> <li>- What cases were reviewed</li> <li>- Time taken</li> </ul>
	<ul style="list-style-type: none"> <li>• <u>Internal targeted case review</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Specific case types</li> </ul> </li> </ul>	
	<ul style="list-style-type: none"> <li>• <u>Inter-institutional correlations</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Second opinions (incoming and outgoing)</li> <li>- Medico-legal case reviews (including other specialities)</li> </ul> </li> </ul>	<p>Document discordance as</p> <ul style="list-style-type: none"> <li>- None (agreement)</li> <li>- Minor non clinical</li> <li>- Minor clinical (no impact on patient care)</li> <li>- Major clinical (potential impact on patient care)</li> </ul>
	<ul style="list-style-type: none"> <li>• <u>Intradepartmental correlations</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Infection control meetings</li> <li>- Antimicrobial stewardship meetings</li> <li>- Intensive Care Unit (ICU) rounds</li> </ul> </li> </ul>	
	<ul style="list-style-type: none"> <li>• <u>External case review meetings</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Case presentations, document any discordance</li> <li>- Online Medical Discussion forums (e.g. Ozbug)</li> </ul> </li> </ul>	<p>Document discordance as</p> <ul style="list-style-type: none"> <li>- None (agreement)</li> <li>- Minor non clinical</li> <li>- Minor clinical</li> <li>- Major clinical</li> </ul>
	<ul style="list-style-type: none"> <li>• Audit of corrected/amended reports</li> </ul>	
	<ul style="list-style-type: none"> <li>• Reviews of methodology –correlation with best practice</li> </ul>	
<p><b>Formal Peer Review</b></p>	<ul style="list-style-type: none"> <li>• Validated 360 degree peer review completed</li> </ul>	<p>Date, time and duration and brief description of activity.</p>

Each laboratory must have documented processes for handling diagnostic discordances when detected.

**FRAMEWORK**  
Internal Quality Assurance Activities  
**MICROBIOLOGY**

**Section 2: TECHNICAL MEASURES - laboratory based non-conformances (audit activities)**

**Recommended: Minimum 10 hours per annum combined Technical Measures/Service Performance**

Activity	Examples of quality monitors related to lab based non-conformances	Suggested document Requirements
<p><b>Non-conformance reporting</b></p> <p>A laboratory non-conformance is an incident that has the potential to cause an error or harm. Documentation of these is a requirement. Laboratories should have existing policies, procedures and processes in place if such an incident occurs. The examples stated in this table should be reported.</p>	<ul style="list-style-type: none"> <li>• <u>Specimen receipt issues</u>* - <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Incorrect identifiers</li> <li>- Labelling errors</li> <li>- Lost specimens</li> </ul> </li> <li>• <u>Specimen handling issues</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Inappropriate processing</li> </ul> </li> <li>• <u>Laboratory technique issues</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Establish &amp; review of test QC programs</li> <li>- Individual test validations</li> </ul> </li> </ul>	<p>Incidence +/- % of non-conformances</p>

**Section 2: SERVICE PERFORMANCE - suggested examples are provided below of types of service activities that may be monitored and specific data collected**

<p><b>Audit of Service Performance</b></p> <p>The goal is to monitor and improve internal laboratory performance using auditable measures and collect acceptable data to develop benchmarks for the future.</p>	<ul style="list-style-type: none"> <li>• Turn Around Time (TAT)** <ul style="list-style-type: none"> <li>- ACHS CIs compliance</li> <li>- Selected tests e.g. CSF</li> </ul> </li> <li>• Report format review <ul style="list-style-type: none"> <li>- Automated comments</li> </ul> </li> <li>• Review of reports with public health implications <ul style="list-style-type: none"> <li>- Trends</li> <li>- Spikes</li> </ul> </li> <li>• <u>Laboratory network reviews</u> – <i>examples could include:</i> <ul style="list-style-type: none"> <li>- Harmonisation of procedures</li> <li>- Review of network / lab performance</li> </ul> </li> <li>• Billing Errors</li> </ul>	<p>Documentation of TAT</p> <ul style="list-style-type: none"> <li>- Overall</li> <li>- Different phases of reporting process</li> <li>- By different case types</li> </ul> <p>% of errors post audit</p>
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\* Laboratories must have policies for handling detected non-conformances

\*\* Consider criteria from either current ACHS or RCPA recommendations

Establishing a Microbiology IQA Framework that will be used to routinely review processes in the discipline should facilitate improved laboratory practices. It provides a mechanism for peer review, introduces a mechanism for laboratories to benchmark their processes to measure improvements, reduces the risk of aberrant/uninformative/false reports being issued in a clinical environment, thereby improving the quality of patient management and/or outcomes.

Activities performed from the Microbiology IQA Framework will be linked to the RCPA CPD Program and will likely be an important part of any Revalidation Framework the College may need to adopt in the future.

The completion of these activities could form part of the RCPA audit substantiation for the RCPA CPD Program in the future.