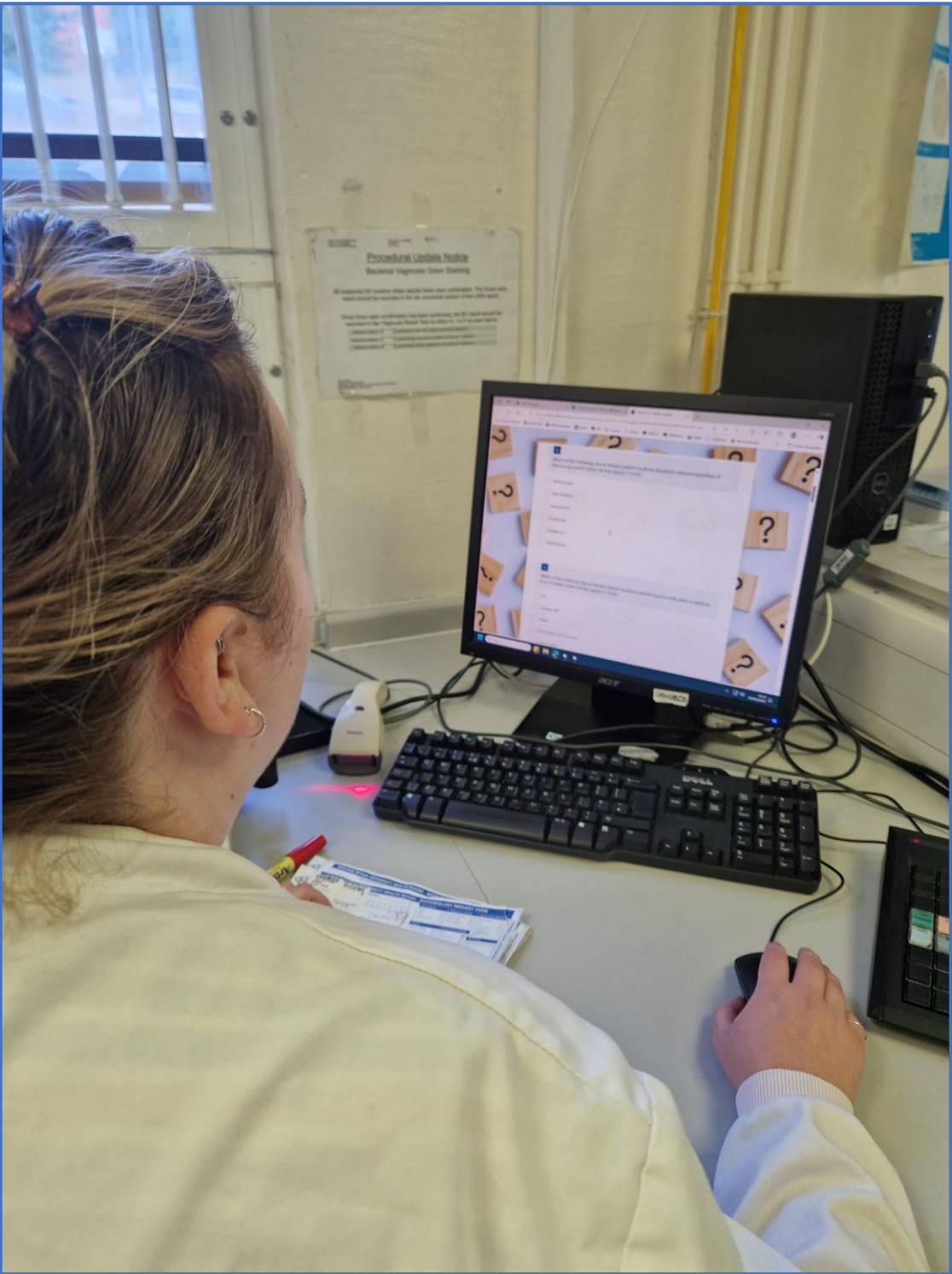


Microsoft Forms as a tool in competency renewal

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Background and Introduction

Microbiology at the Royal Gwent Hospital (RGW) has a high training burden with 92 staff members at various grades including Healthcare Support Workers (HCSW), Associate Practitioners (AP) and Biomedical Scientists (BMS) working across 11 sections of the laboratory. Prior to this year laboratory-based competency assessment was paper-based, with completion of a competency document including knowledge questions, and audits (if applicable) undertaken during initial training. Newly qualified staff renewed their competency after three years and experienced staff renewed after five years using the same documentation as on initial competency assessment. Re-assessment was time-consuming and documentation often got misplaced partially completed, leading to duplication of work.

It is required by ISO 15189:2022 Standards that laboratories have evidence of training and retraining of staff including the monitoring of competency and frequency of reassessment. However, there are no specific recommendations governing the ideal time period for renewal of competencies. It is a condition of HCPC registration that Biomedical Scientists stay up to date with developments in their field including new methodologies and technologies and the renewal of competencies can provide valuable evidence of Continuing Professional Development (CPD). Pathology is an ever-evolving field and updated standards and guidelines for testing and diagnosis are frequently published from a variety of organisations with an influence in healthcare science. Competency renewal should occur frequently enough that staff can evidence understanding and application of changes to procedure and methodology, without becoming too burdensome or time consuming to complete.

Based on these factors, it was decided that renewing competency on a two-year cycle, in line with HCPC registration renewal, provided a good balance between keeping knowledge current and not overwhelming staff or members of the Training Team.

Aims

- Improve efficiency of competency renewal
- Give opportunity for staff to regularly refresh knowledge
- Identify areas of discrepancy between documented procedures and staff behaviours and clarify as appropriate
- Address issues identified from error logs
- Improve engagement of staff with laboratory processes

Methodology

Microsoft Forms was used to produce quizzes for each section of the laboratory based on Standard Operating Procedures (SOPs). Quizzes were tailored to staff grade, depending on the role personnel would usually perform in the section. Each quiz tested knowledge of bench procedures, including targeted questions at areas where errors had been reported or changes had recently been implemented. A calendar was drawn up to show the monthly release of quizzes through the year.

Direct links to quizzes were sent to all staff signed off as competent in the relevant section via email, and each link was also added to the Departmental SharePoint page. A one month deadline was given for completion and regular reminders were given in staff meetings and via email. The pass mark for each quiz was set at 80%. At the end of the one month deadline, results and feedback were published, allowing staff to review their incorrect answers and see the correct responses and the rationale behind them. If the quiz was not passed, a link for a retake was sent out for resubmission. Failure to pass the retake resulted in the need to fill in the full competency documentation as required at initial competency assessment.

MARCH 2025	
Swabs: Genitals	BMS: Culture read AP/HCSW: Processing

APRIL 2025	
Blood cultures	BMS: Culture read AP: Processing

MAY 2025	
Urines	BMS: Culture read AP/HCSW: Processing

JUNE 2025	
Swabs: Wounds	BMS: Culture read AP/HCSW: Processing

JULY 2025	
Respiratory	BMS: Culture read AP: Processing

Pass rate	BMS	AP/HCSW
First attempt	90%	86%
Second attempt	100%	100%

Pass rate	BMS	AP
First attempt	69%	75%
Second attempt	100%	100%

Pass rate	BMS	AP/HCSW
First attempt	76%	54%
Second attempt	97%	93%

Pass rate	BMS	AP/HCSW
First attempt	96%	93%
Second attempt	100%	100%

Pass rate	BMS	AP
First attempt	82%	60%
Second attempt	96%	92%

Results

Response to the competency quizzes was positive and the majority of staff completed the quizzes within the specified deadlines. The pass rates for each quiz are shown above. The average time to complete quizzes was just under eleven minutes (10:54). Change requests were raised for four SOPs to clarify processes and procedures and eliminate discrepancies between different documents. Common errors were raised in staff huddles to make the team aware. Feedback forms were available as a separate form although uptake as a proportion of responses was poor. Some staff members gave feedback in person, which was documented separately.

The quiz was very easy to access via email and SharePoint. Questions were very easy to understand, especially with multiple choice answers. The quiz was not too long and easily completed in some spare time. I answered Q.23 incorrectly, which made me read more into the topic and improve my knowledge.

Confirmed my confidence of my knowledge on the bench. Would be helpful for future competencies alongside an audit :)

When we haven't been on a bench for a little while, completing each quiz on the appropriate bench is a good reminder before hand. They are also an enjoyable and an informal way of keeping up with our knowledge! Patients / service users benefit because the lab staff are kept up to date with each bench and any gaps in knowledge can be addressed in a non formal way! GOOD STUFF!!

Although every BMS should be familiar with all the questions, sometimes a refresher is needed on some, and this is a very good way of topping up our knowledge and filling in any gaps.

Enterics v1 - Read

Competency quiz

Hi Nicola, When you submit this form, the owner will see your name and email address.

1. Based on the criteria given below, which sample would NOT be tested for C. diff? (1 Point)

☐ Infected, 40yr

☐ Outpatient, 30yr

☐ GP patient, 1yr

☐ GP patient, 20yr, recent Clostridium

☐ GP patient, 40yr

When should the CDPORM comment be used? (1 Point)

☐ Specimen is Bristol stool type 1-4

☐ Specimen is Bristol stool type 5-7

☐ Patient is under 2 years old

3. Which of the organisms detected on G2 are parasites? (Select all that apply) (1 Point)

☐ Salmonella

☐ Shigella

☐ E. coli

☐ Shistosoma

☐ Cryptosporidium

☐ Cyclospora

4. Which of the following organisms may be implicated if clinical details mention 'seafood consumption'? (Select all that apply) (1 Point)

☐ Aeromonas spp.

☐ Cryptosporidium

☐ Plesiomonas shigelloides

☐ Vibrio cholerae

☐ Shistosoma

5. What should be added if clinical details say "Salmonella clearance" or "previous Salmonella"? (1 Point)

☐ Abusive previous stool

☐ 1000g plate

☐ 100g plate

☐ 1000g stool

☐ 100g plate

Feedback and summary

The competency quizzes have provided an easily accessible and time efficient way to refresh knowledge for those previously signed off as competent.

The monthly release of the quizzes has stimulated staff engagement, with the questions and answers being discussed around the laboratory including highlighting areas where there was a lack of clarity in documentation.

Feedback received has been positive and the quizzes have scored highly, averaging 4.7 out of 5. All respondents strongly agreed that the quizzes were easy to access and agreed or strongly agreed that their knowledge had improved. Uptake of the feedback forms was poor overall, and a mandatory section giving feedback and encouraging reflection will be included in the next round of quizzes.

In conclusion, Microsoft forms is an accessible way to test knowledge and coupled with practical assessment can reduce the burden of assessing and documenting competency renewal.

Future plans

- Complete roll out of quizzes for staff working at all grades in all sections of the laboratory
- Create timetable for refreshing quizzes every two years to include any updates to Standard Operating Procedures
- Include mandatory feedback section and encourage reflection after each quiz
- Explore using the format for unusual organisms and scenarios or for quality control samples, such as NEQAS

Acknowledgments

Thank you to all the staff in Microbiology at the Royal Gwent Hospital, Newport, for their cooperation and support during this process, especially Sally Gray and the Training Team.

References

Health and Care Professions Council, Standards of continuing professional development | The HCPC Website accessed 03/09/2025

Institute of Biomedical Science, Laboratory Training Approval, Website accessed 03/09/2025

United Kingdom Accreditation Service, Medical Laboratories – Requirements for quality and competence (ISO 15189:2022) Published by British Standards Institution (BSI) Standards Limited 2022

Scan the QR code to see an example quiz designed for Biomedical Scientists reading the Genital swabs bench.

