

# Summary of Results

## External Quality Assessment of Water Microbiology

### Hospital Tap Water Scheme

**Distribution Number: HTW32**

**Sample Numbers: HTW32A, HTW32B**

Distribution Date:	<b>February 2025</b>
Results Due:	<b>14 March 2025</b>
Report Date:	<b>18 March 2025</b>
Samples prepared and quality control tested by:	<b>Divya George Afifa Halim Nafeesa Hussain Sabine Naujokat Zak Prior Jake Videlefsky</b>
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For further information about the scheme please refer to:

**Scheme Guide:** <https://www.feptu.org.uk/schemes/scheme-guide/>

**Guide to Scoring and Statistics:** <https://www.feptu.org.uk/schemes/scoring/>

**General guidance for z-scores:**

Participants' enumeration results are converted into z-scores using the following formula:

$$Z = \frac{(X_i - X_{pt})}{\sigma_{pt}}$$

$X_i$  = participants' result (expressed as a log<sub>10</sub> value)  
 $X_{pt}$  = assigned value (participants' consensus median (expressed as a log<sub>10</sub> value))  
 $\sigma_{pt}$  = the fixed standard deviation for the examination (calculated by FEPTU)

The  $\sigma_{pt}$ -value expresses the acceptable difference between the individual participant's result and the participants' consensus median. The  $\sigma_{pt}$ -value used for calculating z-scores in the Hospital Tap Water Scheme is 0.35. A guide to interpreting z-scores follows, although laboratories must interpret their scores in the context of their own laboratory situation:

z = -1.99 to +1.99                      **satisfactory**  
z = -2 to -2.99 or +2 to +2.99       **questionable**  
z = < -3.00 or > + 3.00               **unsatisfactory**

It is usually recommended that z-scores exceeding  $\pm 2.0$  are investigated to establish the possible cause. As a general rule, UKHSA recommends that all questionable and unsatisfactory results are investigated.

**FEPTU Quality Control:** To demonstrate homogeneity of the sample, a minimum of 10 LENTICULE® discs, selected randomly from a batch, are tested in duplicate for the enumeration test.

To demonstrate stability of the sample, a minimum of six LENTICULE discs, selected randomly from a batch, are examined throughout the distribution period for the enumeration test.

FEPTU results are determined using the method stated in the UK Department of Health document: Health Technical Memorandum 04-01: Safe water in healthcare premises Part C: Pseudomonas aeruginosa - advice for augmented care units (2016).

The FEPTU results are used for guidance in the preliminary intended results notification, letters are posted on the website immediately after every distribution; electronic notification of their availability is sent to all participants.

Refer to section 19.0 of the Scheme Guide if you have experienced difficulties with any of the examinations.

<https://www.feptu.org.uk/schemes/scheme-guide/>

Participants are reminded that reporting incorrect or false negative results for water samples could have serious public health implications.

Please contact FEPTU staff for advice and information:

<b>Repeat samples</b>	Carmen Gomes or Kermin Daruwalla	<b>Tel: +44 (0)20 8327 7119</b>
<b>Data Analysis</b>	Nita Patel	<b>Fax:</b>
<b>Microbiological advice</b>	Nita Patel or Zak Prior	<b>Email: foodeqa@ukhsa.gov.uk</b>
<b>General comments and complaints</b>	Nita Patel or Zak Prior	<a href="https://www.feptu.org.uk/schemes/scheme-guide/">FEPTU's website</a>
<b>Scheme consultants</b>	Caroline Willis	
<b>Scheme Co-ordinator</b>	Nita Patel	

**Accreditation:** UKHSA Water EQA Scheme for Hospital Tap Water is accredited by the United Kingdom Accreditation Service (UKAS) to ISO/IEC 17043:2010.



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## Sample: HTW32A

### Contents:

*Micrococcus* sp. (33) (wild strain), *Penicillium chrysogenum* (18) (wild strain), *Providencia rettgeri* (68) (NCTC 7475)

### Expected Results:

All counts are expressed as colony forming units (cfu) per 100mL.

The fixed standard deviation value ( $\sigma_{pt}$  value) used for calculation of the z-score is **0.35** for this parameter.

Results	
FEPTU median (MF) <sup>1</sup>	0
No. results returned	39
Assigned value (Participants' median all results)	0
Interpretation based on assigned value*	Satisfactory
Uncertainty of assigned value	N/A
Participants' mean (all results)	N/A
Expected Range	N/A
Standard deviation**	N/A
No of outlying counts	N/A
False positives	0
False negatives	
Your result	
Your interpretation	
Score for performance assessment	
Z-score	

<sup>1</sup> Membrane filtration

\* Reference: [HTM 04-01 part B](#)

\*\* Robust S\* based on median absolute deviation about the participants' median (MADe)

Total sent samples	44
Not examined	1
Non returns	4

## Sample: HTW32B

### Contents:

*Pseudomonas aeruginosa* (97) (wild strain), *Saccharomyces cerevisiae* (15) (wild strain)

### Expected Results:

All counts are expressed as colony forming units (cfu) per 100mL.

The fixed standard deviation value ( $\sigma_{pt}$  value) used for calculation of the z-score is **0.35** for this parameter.

Results	
FEPTU median (MF) <sup>1</sup>	98
No. results returned	39
Assigned value (Participants' median all results)	99
Interpretation based on assigned value*	Risk-assess and retest (pre-/post-flush) as stated in HTM 04-01 part B
Uncertainty of assigned value	6
Participants' mean (all results)	101
Expected Range	35 - 163
Standard deviation**	32
No of outlying counts	2
False positives	
False negatives	1
Your result	
Your interpretation	
Score for performance assessment	
Z-score	

<sup>1</sup> Membrane filtration

\* Reference: [HTM 04-01 part B](#)

\*\* Robust  $S^*$  based on median absolute deviation about the participants' median (MADe)

Total sent samples	44
Not examined	1
Non returns	4

Performance Assessment Sheet

Distribution	Sample	<i>Pseudomonas aeruginosa</i> score
HTW32	HTW32A	
	HTW32B	
HTW31	HTW31A	
	HTW31B	
HTW30	HTW30A	
	HTW30B	
Total maximum possible score		
Total percentage		

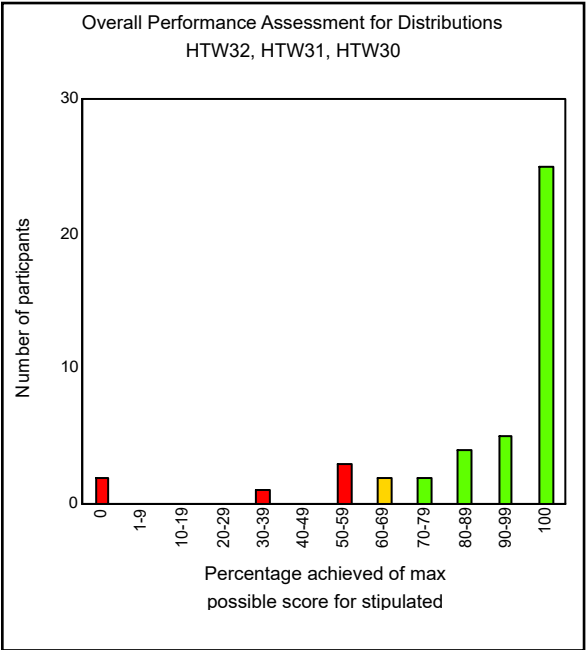
Performance Assessment Comment:

Participants are reminded that to take advantage of the performance assessment overtime tool provided in the reports they need to take part in more than one distribution a year.

Performance assessments are designed to alert participants to on-going problems with their examinations and are provided after every distribution. Scores are allocated to results reported for every parameter, for every sample to help assess performance.

Cumulative scores are calculated for the current distribution for the Hospital Tap Water Scheme. Participants' cumulative scores for each of the examinations are compared with the maximum possible scores after every distribution.

Your overall performance with the enumerations in the hospital tap water proficiency testing samples for the current distribution is collated in the chart to the right.



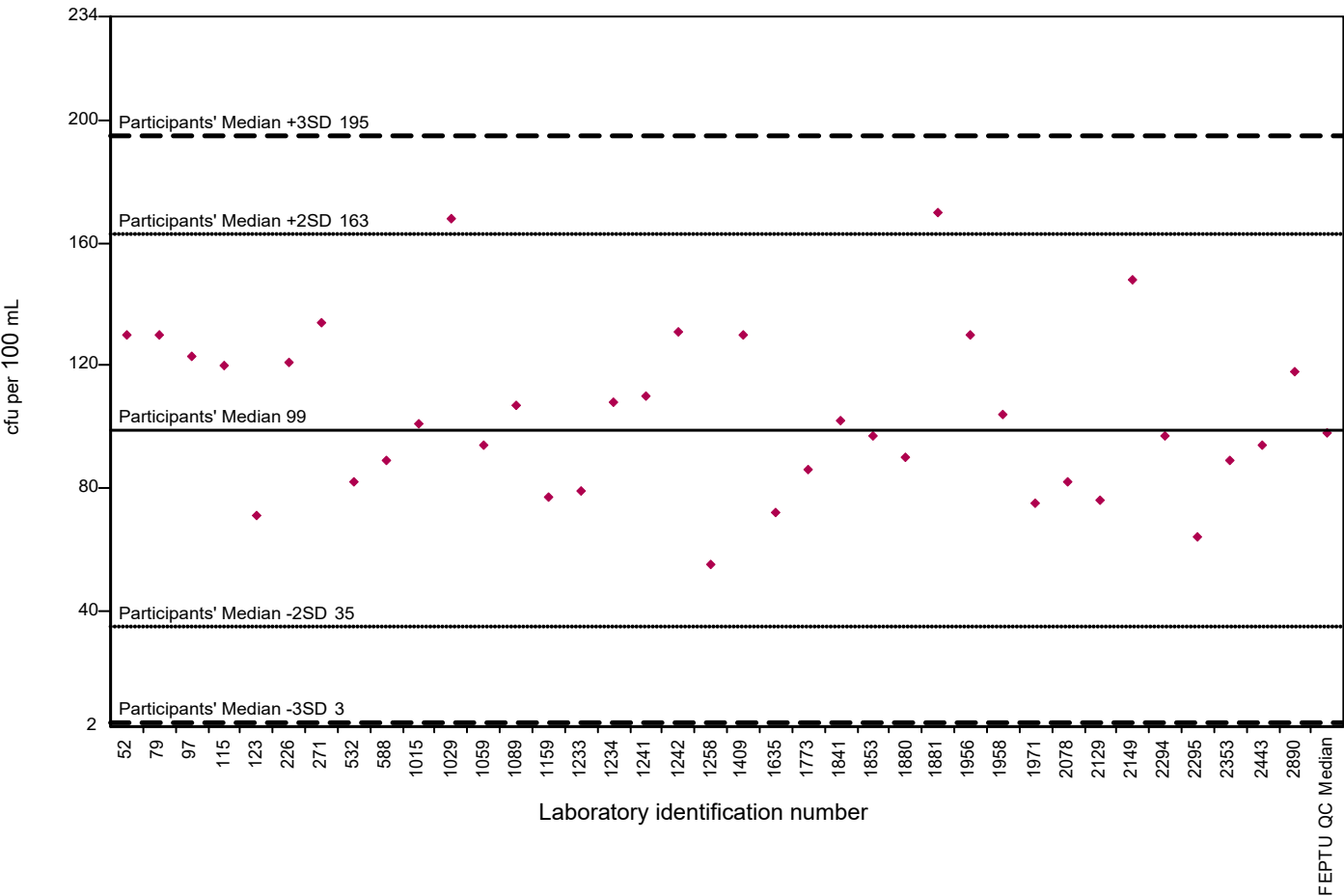
HTW32A - *Pseudomonas aeruginosa*

Key: ♦ Reported result

No data for graph

HTW32B - *Pseudomonas aeruginosa*

Key: ♦ Reported result



**Sample specific comment:**

HTW32A: 20 laboratories provided a conclusion on the results reported, responses are shown in the table below:

Colony forming counts reported per 100mL	Conclusion reported by the laboratories (number of laboratories)
Count reported 0 Censored value <1	Satisfactory (18) (2)
Count reported 0	No comments/interpretation by laboratory provided (9)

HTW32B: 20 laboratories provided a conclusion on the results reported, responses are shown in the table below:

Colony forming counts reported per 100mL	Conclusion reported by the laboratories (number of laboratories)
Range reported 0 - 90	Satisfactory (3)
Range reported 55 – 120 Censored value >100	Risk-assess and retest (pre-/post-flush) as stated in HTM 04-01 part B (10) (1)
Count reported 82	Retest (pre-/post-flush) (1)
Range reported 76 - 148	Unsatisfactory (5)
Range reported 71 - 134	No comments/interpretation by laboratory provided (9)

Participants are reminded to only report a conclusion on a test result if this is part of your reporting procedure.

In the UK, the following document provides information on the requirements for the quality assurance of water systems, microbiological testing and interpretation/conclusions of test results:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/524882/DH\\_HTM\\_0401\\_PART\\_B\\_acc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/524882/DH_HTM_0401_PART_B_acc.pdf)

The Interpretation/conclusions of microbiological test results in your country may vary to those published in this document.

**General comment:**

If you do not return a result for a distribution, you will not be able to view all the participants' results data in your individualised report. To access the missing data contact us on [foodeqa@ukhsa.gov.uk](mailto:foodeqa@ukhsa.gov.uk)

**New website**

We are pleased to announce the launch of our new website: <https://www.feptu.org.uk/>. Please refer to this website to obtain the latest information for your proficiency testing.

**Information of importance**

To understand more about the proficiency testing schemes, please use the following links for information on:

1. Report format explained: [Annotated report](#)
2. Performance rating: [Performance-over-time](#) and [Scheme guide](#) (section 16.0)
3. Scoring and statistics used: [Scoring information and stats](#)
4. Homogeneity and stability: [Scheme guide](#) (section 9.0)
5. Complaints and appeal process: [Scheme guide](#) (section 20.0 and 21.0)

For further information about the operation of the service including confidentiality and terms of participation, please refer to the Scheme Guide: [Scheme guide](#)

**End of report.**

