105 respiratory samples ('Copan UTM' brand swabs) were obtained and retrospectively tested by Verigene. Samples had been stored at -20°C for several weeks.

Patient ages ranged from 1 month to 91 years; 34 patients were less than 16 years.

Cycle threshold (Ct) value for a 'positive' result in the in-house RT-PCR has a cut-off of Ct < 36.0.

Results were analysed on the basis of the first result obtained by both tests.

Indeterminate Verigene results were omitted from the sensitivity, specificity, PPV, and NPV analysis.

Data on influenza typing and oseltamivir resistance is also presented.

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**Introduction and Aim**

- Influenza and RSV are the most common causes of hospital admissions during the winter months.
- Cohorting of cases is a valid method of balancing patient care against risk of cross-infection.
- To avoid admitting influenza cases into an RSV cohort, lab diagnosis must be rapid and accurate.
- The Verigene platform offers an integrated system for the diagnosis of respiratory infection in a near-patient environment.
- To investigate its clinical utility, we evaluated the Verigene RV Plus test platform against our in-house routine diagnostic multiplex RT-PCR test.

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**Methods**

- 105 respiratory samples ('Copan UTM' brand swabs) were obtained and retrospectively tested by Verigene. Samples had been stored at -20°C for several weeks.
- Patient ages ranged from 1 month to 91 years; 34 patients were less than 16 years.
- Cycle threshold (Ct) value for a 'positive' result in the in-house RT-PCR has a cut-off of Ct < 36.0.
- Results were analysed on the basis of the first result obtained by both tests.
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- Data on influenza typing and oseltamivir resistance is also presented.

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**Results**

<table>
<thead>
<tr>
<th>Viruses</th>
<th>Verigene</th>
<th>RT-PCR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza A</td>
<td>43</td>
<td>0</td>
</tr>
<tr>
<td>Influenza B</td>
<td>38</td>
<td>0</td>
</tr>
<tr>
<td>RSV</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

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**Discussion and conclusions**

- Overall the Verigene system appears to offer the ability to rapidly screen patients for three of the most important winter viral respiratory pathogens.
- With accurate diagnostic information to hand, clinical decisions can be more easily made regarding admission or early discharge of patients, or whether cohorting can be safely set up.

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**Comparison of Nanosphere Verigene® Respiratory Virus Plus and in-house RT-PCR for the near-patient detection of influenza and respiratory syncytial virus (RSV)**

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