Appendix

(1) **Survey domains, questions and responses**

Domains: (i) Condition, (ii) Technology, (iii) Wider system

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The information generated by NEWS2; including score and alarms; are easy to understand</td>
<td>6</td>
<td>24</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>19</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>B. The implementation of digital recording of NEWS2 in EHRs helps in recording patients’ parameters and NEWS2</td>
<td>9</td>
<td>21</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>2</td>
<td>22</td>
<td>2</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>C. The implementation of digital recording of NEWS2 in EHRs helps in improving the escalation of care when needed</td>
<td>7</td>
<td>20</td>
<td>29</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>15</td>
<td>5</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>D. The presented model of NEWS2 in the EHRs is simple and practical. (EHR Electronic health records)</td>
<td>2</td>
<td>27</td>
<td>10</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>E. There is a clear policy on the application of NEWS2 in patients care in your hospital</td>
<td>1</td>
<td>33</td>
<td>5</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>14</td>
<td>5</td>
<td>2</td>
</tr>
</tbody>
</table>

- **F.** How often patients have complex conditions, i.e., comorbidities, metabolically unstable, or poorly understood condition (Excluding Covid)
- **G.** How often patients cared for were diagnosed with Covid-19 /
- **H.** How often patients have socioeconomic factors i.e. family, income, house condition, education, affecting their prognosis
- **I.** The need for help in understanding NEWS2 and who to refer to
- **J.** Attending networking session with regard to NEWS2 and routine monitoring i.e updates, or team meetings.
- **K.** Training offered to understand and utilise NEWS2.
(2) Interview domains and questions

Domains: (i) Condition (ii) Value preposition, (iii) Adopters, (iv) Organisation (v) Adaptation over time

(i) Experience of implementing NEWS2 in the clinical setting:

- Have you used NEWS2 for escalation of care while caring for patients? How common is it to receive an alarm for a patient in need for critical care?
- How do you respond to an alarm by NEWS2?

(ii) The value of NEWS2

- How valuable is NEWS2 as a tool presented to you by the developers who implemented it in EHRs?
- How simple was NEWS2 understanding and use?
- Does it bring you the value it was supposed to? Did it improve the efficacy and safety of patients?

(iii) The adoption to utilizing NEWS2

- How did this implementation change your practice in escalating care?
- How did this change affect patients care and safety?

(iv) The organisational capacity

- How supported is early warning scores in the organisation? Do you think the hospital systems is ready for utilizing NEWS2 digitally?

(iv) Adapting over time:

- How resilient is the organisation and staff to adapt to the escalation of care using NEWS2?
- Have you faced issues around the process of escalation using NEWS2 and technology? How much scope is there to resolve that may arise over time?