

## Interview scheme

### Instruction

- The interview scheme describes main interview topics and corresponding question topics. The introduction of topics or visual aids is described in italic. The checkboxes () list items that should be discussed with each participant as part of the topic exploration. If these items were not addressed by participants themselves as response to the open question, these were introduced later by the interviewer.
- The interviewer should introduce main topics and the corresponding visual aids in the order as described. The sequence of questions within main topics can be changed, and questions for emerging topic can be added. Rephrasing of questions and probing can be used to encourage detailed answering.

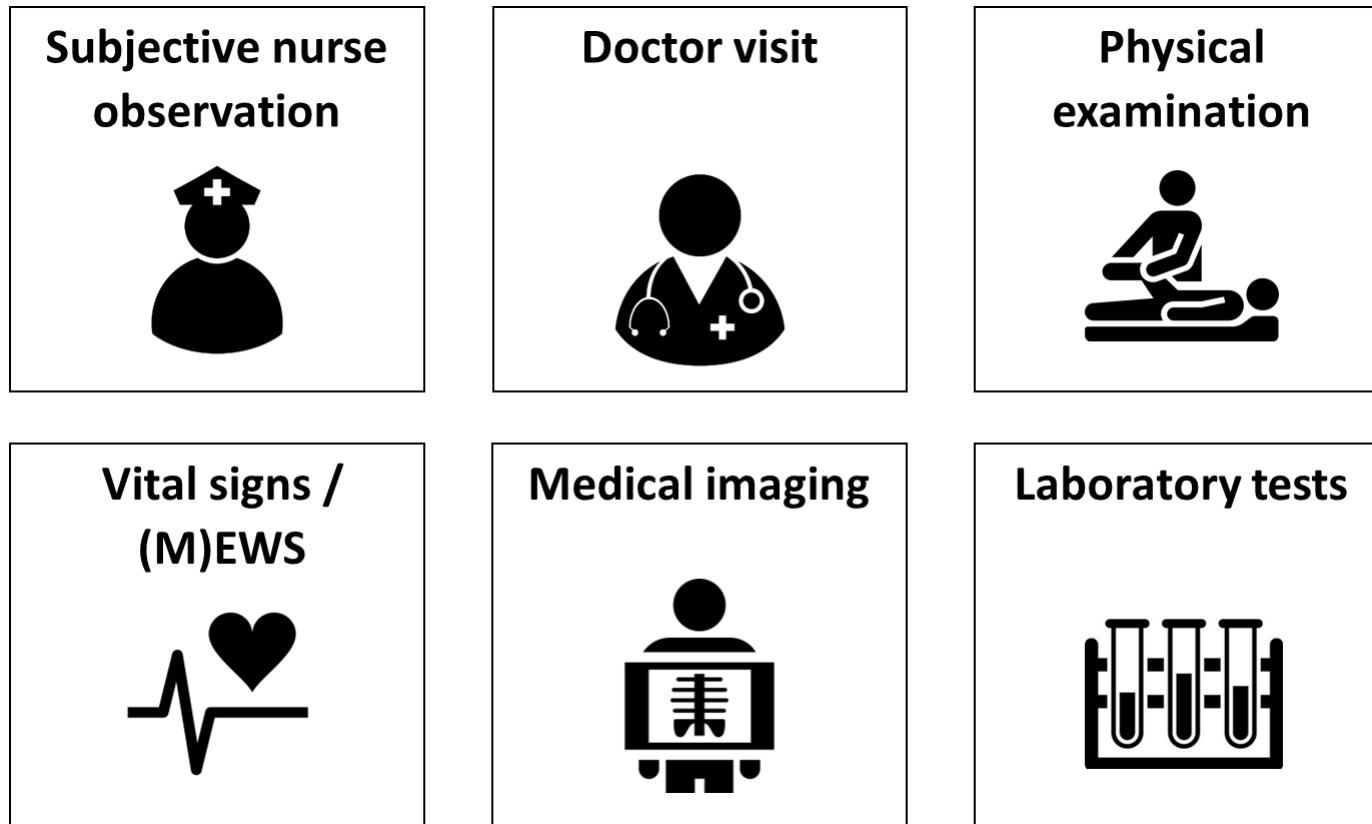
Main topic	Topics of questions
Participants' background	<p><i>Introduction of interview goals and set-up</i></p> <ul style="list-style-type: none"> <li>- Participant's position in hospital</li> <li>- Years of working experience</li> </ul>
Current monitoring routine	<p><i>Introduction of scope: participants undergoing esophagectomy admitted to ward.</i></p> <p><i>Introduction of common types of routine measurements: <b>visual aid 1</b></i></p> <ul style="list-style-type: none"> <li>- Type and frequency of measurements in patient monitoring routine in clinical ward               <ul style="list-style-type: none"> <li><input type="checkbox"/> Subjective nurse observation</li> <li><input type="checkbox"/> Physician round</li> <li><input type="checkbox"/> Physical examination</li> <li><input type="checkbox"/> Vital signs</li> <li><input type="checkbox"/> Lab tests</li> <li><input type="checkbox"/> Medical imaging</li> </ul> </li> <li>- Situations where monitoring routine is performed differently</li> <li>- First actions in case of abnormalities               <ul style="list-style-type: none"> <li><input type="checkbox"/> Involve other caregivers</li> <li><input type="checkbox"/> Additional diagnostic actions</li> <li><input type="checkbox"/> Emergency intervention team</li> </ul> </li> </ul>

<p>Early recognition of complications</p>	<ul style="list-style-type: none"> <li>- Order of presentation of abnormalities during complication development: pneumonia + anastomotic leak <ul style="list-style-type: none"> <li><input type="checkbox"/> Subjective nurse observation</li> <li><input type="checkbox"/> Physician round</li> <li><input type="checkbox"/> Physical examination</li> <li><input type="checkbox"/> Vital signs</li> <li><input type="checkbox"/> Lab tests</li> <li><input type="checkbox"/> Medical imaging</li> </ul> </li> <li>- Ability to detect complications in early phase in current practice</li> <li>- Factors influencing the time to detect complications <ul style="list-style-type: none"> <li><input type="checkbox"/> Measurement type</li> <li><input type="checkbox"/> Care professionals</li> </ul> </li> <li>- Consequences of late detection of complications <ul style="list-style-type: none"> <li><input type="checkbox"/> Patient outcome</li> <li><input type="checkbox"/> Clinical trajectory of patient</li> </ul> </li> </ul>
<p>Effectiveness of continuous vital signs monitoring</p>	<p><i>Introduction of theoretical mechanism of patient monitoring: <b>visual aid 2</b></i>  <i>Introduction of telemonitoring concept: <b>visual aid 3</b></i></p> <ul style="list-style-type: none"> <li>- Expectation: continuous monitoring will lead to earlier detection of deterioration: pneumonia + anastomotic leak</li> <li>- Factors influencing or explaining the expected possibility to improve the time to detect of complications by introducing continuous monitoring</li> <li>- Expected time gain in detection of complications</li> <li>- Complication types that can be detected earlier using continuous monitoring</li> <li>- Expectation: the expected time gain to detect complication will lead to earlier treatment: pneumonia + anastomotic leak</li> <li>- Factors influencing or explaining the expected possibility to improve time to treat complications by introducing continuous monitoring</li> <li>- Prerequisites for early detection and treatment <ul style="list-style-type: none"> <li><input type="checkbox"/> Care protocol</li> <li><input type="checkbox"/> Tasks and responsibilities of care professionals</li> </ul> </li> </ul>

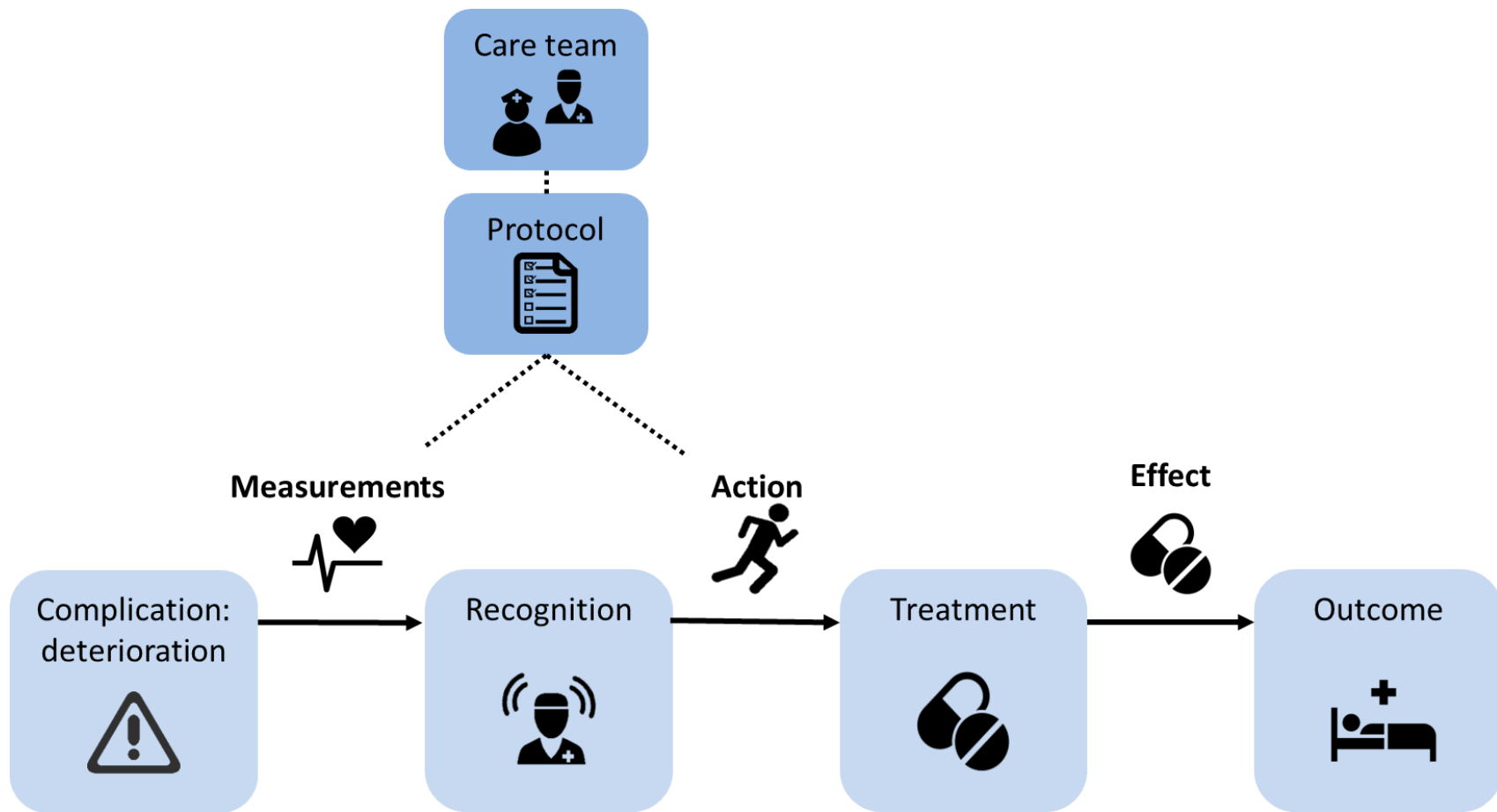
Impact on clinical outcome	<p><i>Introduction of demographic data and clinical outcome data of hospital: <b>patient data handout*</b></i></p> <ul style="list-style-type: none"> <li>- Expectation: the expected time gain to detect and treat complications will improve clinical outcome: pneumonia + anastomotic leak <ul style="list-style-type: none"> <li><input type="checkbox"/> Length of hospital stay</li> <li><input type="checkbox"/> Length of ICU/MCU stay</li> <li><input type="checkbox"/> ICU/MCU readmission rate</li> <li><input type="checkbox"/> Mortality rate</li> </ul> </li> <li>- Factors influencing the possibility to improve clinical outcome by introducing continuous monitoring</li> </ul>
Considerations for implementation	<ul style="list-style-type: none"> <li>- Risks and benefits for stakeholders: <ul style="list-style-type: none"> <li><input type="checkbox"/> Patient</li> <li><input type="checkbox"/> Nurse</li> <li><input type="checkbox"/> Physician</li> <li><input type="checkbox"/> Hospital</li> <li><input type="checkbox"/> Health insurance company</li> </ul> </li> <li>- Overall interest to implement continuous monitoring in ward</li> <li>- Patient where continuous monitoring would be indicated</li> <li>- Factors influencing the overall interest in continuous monitoring</li> </ul>

\* Handout with data of the population characteristics, complication rates, and clinical outcome measures for all patients that underwent elective esophagectomy for non-recurrent esophageal cancer between January 2015 and December 2016. Only data obtained in the participant's hospital is shown to the participant.

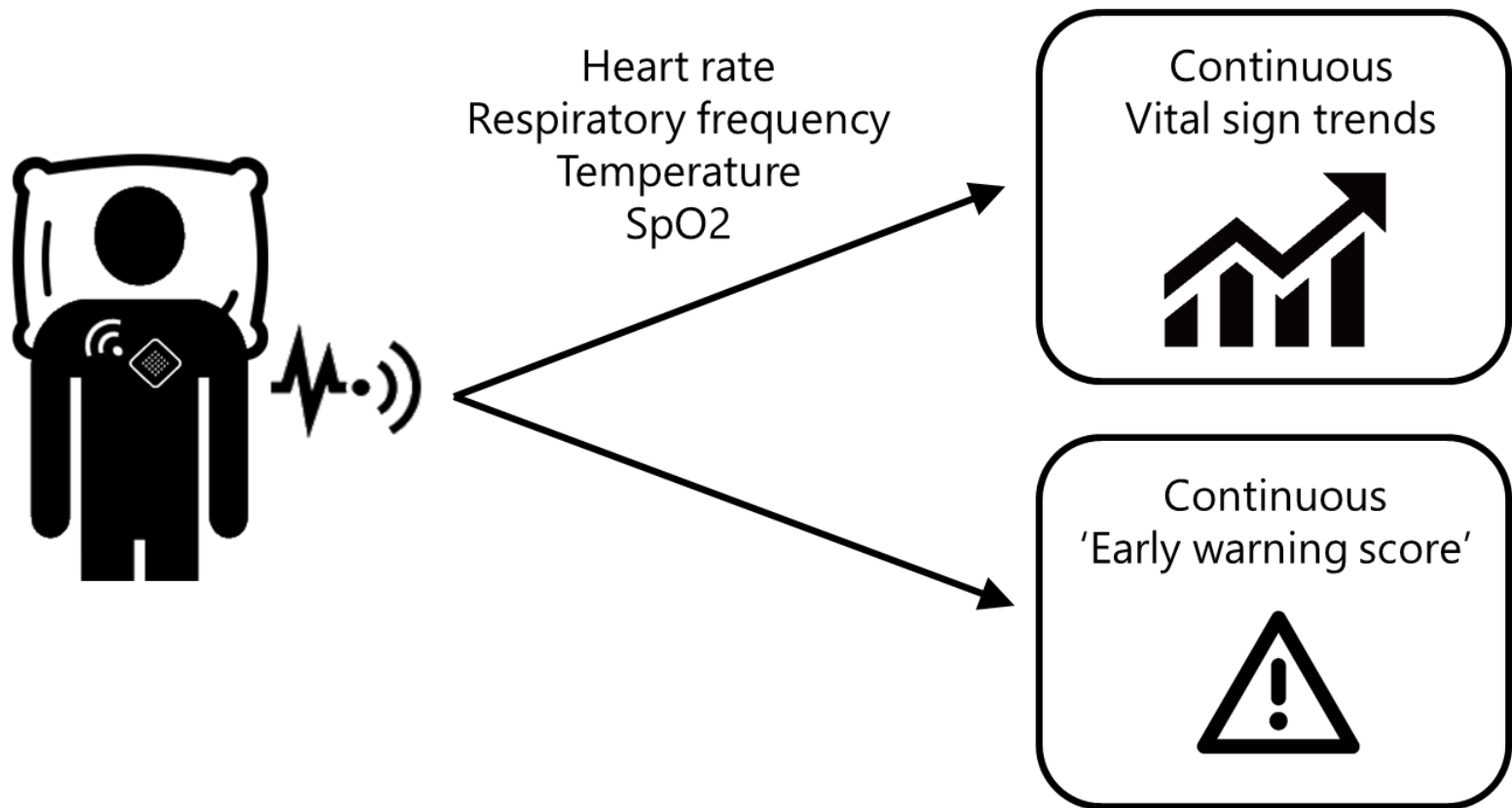
## Visual aids



*Visual aid 1. Visual aid used to support identification of measurements performed in current patient monitoring routine*



Visual aid 2. Visual aid to clarify the theoretical mechanism of patient monitoring



*Visual aid 3. Visual aid to clarify concept of continuous vital signs monitoring*