Appendix II: SE characteristics per theme

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| **Characteristics of the serious adverse events** | **Overall (N=69)** | **Diagnostic process ED (N=23)** | **Medical Technology (N=20)** | **Anticoagulation (N=14)** | **Critically ill patients (N=12)** |
| **Patient gender*** **Male**
* **Female**
 | 3435 | 149 | 812 | 77 | 57 |
| **Age category patient*** **0-17**
* **18-65**
* **66-79**
* **80 and older**
 | 3361812 | 11336 | 11351 | -653 | 1452 |
| **Shift type*** **Day**
* **Evening**
* **Night**
 | 42918 | 968 | 1712 | 1103 | 525 |
| **Event location*** **Emergency department**
* **Operating room**
* **Floor units**
* **Other**
 | 2912244 | 23--- | 1991 | 3272 | 2281 |
| **Type of root cause analysis method used*** **PRISMA**
* **SIRE**
* **Tripod**
* **Combination**
 | 2925510 |  |  |  |  |

|  |  |  |  |  |  |  |  |
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| **Sociotechnical domain** | **Example of contributing factors** | **Events\*****N (%)** | **Factors\*\*****N (%)** | **Diagnostic process ED, factors N** | **Medical technology, factors N** | **Anticoagulation, factors N** | **Critically ill patients, factors N** |
| **Person(s)** | **Patient**Does not speak the language, which hampers the physical exam and medical history takingStops taking medicine earlier than planned | **38 (55.1)** | **45 (10.7)** | **22** | **7** | **8** | **8** |
| **(Healthcare) Personnel**Minimal experience in specific treatment leading to misapplication of a surgical instrumentSuboptimal cooperation and communication between care staff of different departments, which results in the omission of performing tests of vital parameters | **63 (91.3)** | **103 (25.6)** | **37** | **20** | **25** | **21** |
| **Tools & Technology** | Not user friendly electronic medication prescription system hinders correct medication prescriptionThe tip of an electrosurgical instruments breaks off during surgery | **42 (60.9)** | **62 (15.4)** | **13** | **32** | **11** | **6** |
| **Tasks** | Due to high workload vital parameters are not measured and registered, contributing to missing the deterioration of a critically ill patientComplexities in the diagnostic reasoning process (i.a. tunnel vision) leads to missing a high-risk diagnosis | **38 (55.1)** | **48 (11.9)** | **13** | **12** | **14** | **9** |
| **Organisation** | Anticoagulation work instructions are not up-to-date inducing a wrong medication policyInsufficient patient safety culture leads to taking high risks | **59 (85.5)** | **121 (30)** | **43** | **26** | **28** | **24** |
| **Physical environment** | Patient room is too small so caregivers get in each other's way during resuscitationPositioning of monitors and alarm screens hampers accessible patient monitoring information (e.g., cardiac activity, blood pressure and oxygen saturation) for caregivers | **10 (13)** | **11 (2.8)** | **1** | **7** | **0** | **3** |
| **External environment** | Closure of wards in a nearby hospital causes extra bed pressure, contributing to the decision to not admit a patientShortage of emergency doctors on the labour market hinders sufficient staffing during weekends | **13 (19.1)** | **15 (3,7)** | **6** | **1** | **7** | **1** |
| **Total** | **405 (mean per report 6)** | **135 (mean per report 6)** | **105 (mean per report 5)** | **93 (mean per report 7)** | **72 (mean per report 6)** |