

**LICENSING CONDITIONS ON**  
*REVIEW OF SERIOUS REPORTABLE EVENTS*  
**IMPOSED UNDER**  
**SECTION 13(1) OF THE HEALTHCARE SERVICES ACT 2020**

**1. Application**

- 1.1. These licensing conditions (“LCs”) apply to all prescribed licensees, and shall come into effect on **6 March 2023**.
- 1.2. Regulatory action may be taken against a prescribed licensee that is contravening or not complying with, or has contravened or failed to comply with these LCs pursuant to section 20 of the HCSA, including but not limited to -
- a) Revoke a licence of that prescribed licensee;
  - b) Suspend the licence of that prescribed licensee for a period; and
  - c) Direct the prescribed licensee to pay, within a period specified, a financial penalty being not more than \$10,000 for each contravention or non-compliance with these LCs.

**2. DEFINITION OF KEY TERMS**

2.1. In these LCs, unless otherwise specified:

- a) **“abscondment”** refers to a situation where a patient who is cognitively, physically, mentally, emotionally and/or chemically impaired wanders, walks, runs away, escapes or, otherwise leaves the licensed premise where the patient was receiving care at, unsupervised, unnoticed and/or prior to the patient’s scheduled discharge;
- b) **“adverse event”** refers to a negative consequence of care that resulted in harm to a patient;
- c) **“associated with”** means that it is reasonable to assume that the adverse event was due whether in whole or in part to a licensable healthcare service;
- d) **“authorised person”** refers to the surrogate, guardian or other individual(s) having the legally recognised ability to consent on behalf of a minor, an incapacitated individual or a person designated by the surrogate to release or give consent for the patient;
- e) **“clinical incident”** refers to an adverse event that may have arisen from a

licensable healthcare service; and includes a complaint to that effect;

- f) **“error”** refers to the failure to carry out a planned action as intended or the application of an incorrect plan;
- g) **“harm”** means temporary or permanent impairment of the physical structure, biological and psychological functions of the body and/or any deleterious effect(s) arising from there, including death<sup>1</sup>;
- h) **“HCSA”** refers to the Healthcare Services Act 2020;
- i) **“licence”** has the same meaning as ascribed to this term in the HCSA;
- j) **“licensable healthcare service”** has the same meaning as ascribed to this term in the HCSA;
- k) **“licensed premises”** has the same meaning as ascribed to this term in the HCSA;
- l) **“low-risk pregnancy”** refers to a woman aged 18 to 39 (both ages inclusive), with no previous diagnosis of essential hypertension, renal disease, collagen-vascular disease, liver disease, cardiovascular disease, placenta previa, multiple gestation, intrauterine growth retardation, smoking, pregnancy-induced hypertension, premature rupture of membranes or other previously documented condition that poses a high risk of poor pregnancy outcome;
- m) **“medical device”** means any instrument, apparatus, implement, machine, appliance, implant, in vitro reagent or calibrator, software, material or other similar or related article that is intended by its manufacturer to be used, whether alone or in combination, for humans for one or more of the specific purposes of:
  - (i) diagnosis, prevention, monitoring, treatment or alleviation of any disease;
  - (ii) diagnosis, monitoring, treatment, alleviation of or compensation for an injury;
  - (iii) investigation, replacement, modification, or support of the anatomy or of a physiological process;
  - (iv) supporting or sustaining life;
  - (v) control of conception;
  - (vi) disinfection of medical devices; or

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<sup>1</sup> Adapted from the definition in ‘*The WHO Conceptual Framework for the International Classification for Patient Safety (v.1.1). Final Technical Report 2009*’ by the World Health Organisation (WHO)

- (vii) providing information for medical or diagnostic purposes by means of in vitro examination of specimens derived from the human body

and which does not achieve its primary intended action in or on the human body by pharmacological, immunological or metabolic means but which may be assisted in its intended function by such means<sup>2</sup>;

- n) **“MOH”** refers to the Government of the Republic of Singapore as represented by the Ministry of Health;
- o) **“patient safety incident”** refers to an unintended or unexpected incident, including but not limited to an adverse event, which is associated with, could have, or did, lead to harm to a patient;
- p) **“prescribed licensee”** refers to a licensee (i) to whom a licence is granted to provide one or more licensable healthcare services prescribed under the Third Schedule of the Healthcare Services (General) Regulations 2021; and (ii) that is required to establish an SRE QAC as prescribed under the Third Schedule of the Healthcare Services (General) Regulations 2021;
- q) **“preventable”** describes an adverse event that could have been anticipated and prepared for by the prescribed licensee but which occurred because of a human error or a system failure;
- r) **“root cause analysis” or “RCA”** refers to the systematic process whereby an SRE is reviewed to determine the errors, systems failures and underlying cause(s) so that measures can be taken to prevent similar events from occurring or recurring within that licensed premises;
- s) **“serious injury”** refers to harm that substantially limits one or more of the major life activities of an individual, whether in the short term or otherwise, and which may or may not become a disability if extended into the long term. It includes but is not limited to harm (i) that results in death; (ii) that results in the loss of a body part; (iii) that results in disability; (iv) that results in the loss of a bodily function; (v) that requires major intervention such as a higher level of care or surgery; or (vi) that results in a substantial change in the individual’s long-term risk status such that care or monitoring is required when it was not required before the event that caused the harm;
- t) **“serious reportable event” or “SRE”** refers to an adverse event or patient safety incident specified in Table 1 of paragraph 3.1;
- u) **“significant learning value”** refers to the benefit derived by healthcare

systems and professionals from raising the awareness of a serious reportable event with: -

- (i) potentially wide systemic risk;
  - (ii) high probability of occurrence; and
  - (iii) any one of the following: -
    - (A) serious impact on patient(s); or
    - (B) widespread impact across the licensed premises or across Singapore;
- v) “**SRE QAC**” refers to a serious reportable event QAC;
- w) “**surgery**” refers to an invasive operative procedure during which skin or mucous membranes and connective tissue are incised or the procedure is carried out using an instrument that is introduced through a natural body orifice. Surgeries include minimally invasive procedures (including but not limited to biopsy or the placement of probes or catheters requiring the entry into a body cavity through a needle or trocar), minimally invasive dermatological procedures (including but not limited biopsy, excision and deep cryotherapy for malignant lesions), as well as those performed in relation to vaginal birth or Caesarean delivery to extensive multi-organ transplantation. It does not include the use of such things as otoscopes or drawing blood. Surgery begins, regardless of setting, at the point of surgical incision, tissue puncture or the insertion of instrument into tissues, cavities or organs. Surgery ends after all incisions or procedural access routes have been closed in their entirety, devices such as probes or instruments have been removed and, if relevant, final surgical counts confirming accuracy of counts and resolving any discrepancies have concluded and the patient has been taken from the operating/procedure room;
- x) “**systems failure**” refers to a fault, breakdown or dysfunction in the operational methods, processes or infrastructure of the prescribed licensee;
- y) “**QAC**” refers to a quality assurance committee; and
- z) “**working day**” refers to a day which is not a Saturday, Sunday or public holiday in Singapore.

### 3. SERIOUS REPORTABLE EVENTS

3.1. The SREs<sup>3</sup> are set out in Table 1 below (see Appendix 1 for the detailed specifications of each SRE).

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<sup>3</sup> The SREs include events adapted and modified from the ‘Serious Reportable Events’ defined by the National Quality Forum, and other events.

**Table 1: Serious Reportable Events (SRE)**

<b>ADVERSE EVENTS</b>	
<b>I.</b>	<b>Surgical or Other Invasive Procedure Adverse Events</b>
1.	Surgical or other invasive procedure performed on the wrong body site
2.	Surgical or other invasive procedure performed on the wrong patient
3.	Wrong surgical or other invasive procedure performed on a patient
4.	Wrong implant/prosthesis/invasive device inserted into a patient
5.	Unintended retention of a foreign object in a patient after surgical or other invasive procedure
6.	Intraoperative or immediately post-operative/post-procedure death in an American Society of Anesthesiologists (ASA) Class I patient, according to the American Society of Anesthesiologists Physical Status Classification System
<b>II.</b>	<b>Product or Medical Device Adverse Events</b>
7.	Patient death or serious injury associated with the use of contaminated drugs, medical devices or biologics provided by the prescribed licensee
8.	Patient death or serious injury associated with the use or function of a medical device in patient care
9.	Patient death or serious injury associated with intravascular air embolism that occurs while being cared for in a licensed premise
<b>III.</b>	<b>Patient Protection Adverse Events</b>
10.	Unauthorised discharge or release of an infant, a child or any person who lacks capacity, as referred to in section 4(1) of the Mental Capacity Act 2008
11.	Patient death or serious injury associated with patient abscondment
12.	Patient suicide, attempted suicide or self-harm that results in patient death or serious injury, while being cared for in a licensed premise
<b>IV.</b>	<b>Environmental Adverse Events</b>
13.	Any incident in which systems designated for oxygen or other gas to be delivered to a patient contain no gas, the wrong gas or are contaminated by toxic substances
14.	Patient death or serious injury associated with a burn incurred while being cared for in a licensed premise
15.	Patient death or serious injury associated with the use of physical restraints or

bedrails while being cared for in a licensed premise	
<b>V. Care Management Adverse Events</b>	
16.	Patient harm, death or serious injury associated with a medication error falling within Categories E to I of Appendix 2
17.	Patient death or serious injury or risk thereof associated with the unsafe administration of blood or blood products
18.	Transmission of communicable diseases following blood transfusion or organ/tissue transplant
19.	Maternal death or serious injury associated with pregnancy or delivery
20.	Infant death or serious injury associated with labour or delivery in a low-risk pregnancy
21.	Patient death or serious injury resulting from the irretrievable loss of a biological specimen
22.	Patient death or serious injury resulting from failure to follow up or communicate clinical test results
23.	Unexpected death <sup>4</sup> or serious injury as a result of lack of treatment or delay in treatment which could have been preventable otherwise
24.	Unexpected death <sup>6</sup> or serious injury as a result of medical intervention which could have been preventable otherwise
25.	Any assisted human reproductive procedure which has or, may have, resulted in insemination of wrong gamete or transfer of wrong embryo
<b>VI. Radiological Adverse Events</b>	
26.	Ionising radiological procedure performed on a wrong patient or site, or a wrong ionising radiological procedure performed on a patient
27.	Ionising radiological procedure performed on a pregnant patient
28.	Radiopharmaceutical and contrast media administered (i) to a wrong patient; (ii) through a wrong route; or (iii) with a wrong type or dose
29.	Radiation therapy delivered (i) to a wrong body site; (ii) to a wrong patient; or (iii) with a wrong dose
30.	Death or serious injury of a patient associated with the introduction of a metallic object into the magnetic resonance imaging (MRI) area
<b>PATIENT SAFETY INCIDENTS</b>	

<sup>4</sup> Category 3 mortality, see Appendix 3

## **VII. Patient Safety Incidents**

31. Unintended harm or risk of unintended harm to a patient while being cared for in a licensed premise

### **4. GENERAL REQUIREMENTS FOR SERIOUS REPORTABLE EVENTS AND SERIOUS REPORTABLE EVENTS QUALITY ASSURANCE COMMITTEE (SRE QAC)**

#### 4.1. The prescribed licensee:

- a) shall establish a system to detect and collect information on SREs occurring within the licensed premises;
- b) shall establish one or more SRE QACs to monitor, evaluate and review the SREs occurring within the licensed premises based on the information detected and collected pursuant to paragraph 4.1(a) and these LCs for the purposes of, including but not limited to, learning from past experiences and improving processes;
- c) shall ensure that timely and appropriate training is provided to all SRE QAC members, and that all SRE QAC members have a working knowledge of these LCs and the root cause analysis review methodology;
- d) shall appoint a QAC supervisor for each SRE QAC;
- e) shall ensure that the QAC supervisor is a fully registered medical practitioner holding a position of Consultant and above at the licensed premises. The following individuals may be appointed as a QAC supervisor:
  - 
  - (i) the chief executive officer or equivalent of the licensed premises;
  - (ii) the medical director or, equivalent of the licensed premises;
  - (iii) any other person on the medical board and/or clinical governance staff of the licensed premises; or
  - (iv) any other person.
- f) shall ensure that the QAC supervisor carries out the following: -
  - (i) reviews the activities and effectiveness of the SRE QAC(s) based on periodic reports of the activities, findings and recommendations

- submitted by the SRE QAC(s);
  - (ii) assesses the effectiveness of the previous recommendations by the SRE QAC(s) to protect patients from a patient safety incident, by monitoring the number of SREs reported and the recurrence of similar events, if any;
  - (iii) provides the necessary resources to support the effective functioning of the SRE QAC(s); and
  - (iv) ensures that the recommendations of the SRE QAC(s) are implemented by the prescribed licensee;
- g) shall maintain written documentation of each review conducted by the SRE QAC, including but not limited to the following:
  - (i) objective of the review conducted by the SRE QAC;
  - (ii) relevant statutory provisions under which the review was conducted by the SRE QAC;
  - (iii) composition of the SRE QAC;
  - (iv) terms of reference of the SRE QAC;
  - (v) time that the SRE QAC took to complete the review;
  - (vi) number of times the SRE QAC met;
  - (vii) review process adopted by the SRE QAC; and
  - (viii) report documenting findings and follow-up of recommendations of the SRE QAC; and
- h) shall ensure that compliance with the obligations set out in this paragraph 4.1 is reviewed and updated regularly to ensure the effectiveness of the SRE QACs.

## **5. IDENTIFICATION AND NOTIFICATION OF SERIOUS REPORTABLE EVENTS**

5.1. Upon identification of an SRE, the prescribed licensee shall ensure that the following are carried out:

- a) immediately carry out a preliminary assessment to determine if the harm arising from the SRE has the potential to spread and affect a large number of people, whether within or outside of the licensed premises. If it does have such potential, the prescribed licensee shall immediately implement interim measures to contain the harm or risk of harm arising from the SRE while waiting for more conclusive findings from the SRE QACs. An SRE with such potential includes but is not limited to the use of contaminated



drugs, medical devices or biologics resulting in the widespread transmission of blood-borne diseases.

- b) notify the Clinical Quality, Performance and Value Division of MOH (“CQPV”) within **two (2) working days** of the date that the SRE was identified:
  - (i) on the online reporting system, National Quality Assurance System (“NQAS”)<sup>5</sup>, in the provided form titled ‘*SRE Notification Form*’; or
  - (ii) in the event of network connection or technical issues, via electronic mail to [moh\\_nqas@moh.gov.sg](mailto:moh_nqas@moh.gov.sg) or such other address as may be prescribed, in the form of the ‘*SRE Notification Form*’ as set out in Annex A of Appendix 4;

and to include in the said notification:

- A. the date the SRE occurred;
  - B. the date the SRE was identified;
  - C. the location in which the SRE occurred;
  - D. a short summary of the SRE;
  - E. a description of any interim measures implemented by the prescribed licensee pursuant to paragraph 5.1(a); and
  - F. any additional information requested by the MOH.
- c) direct the SRE QAC(s) to monitor, evaluate and review the SRE in accordance with the requirements set out in these LCs.

5.2 Where more than one prescribed licensee and/or person are directly and/or indirectly involved in an SRE, the prescribed licensees so involved shall ensure that paragraphs 5.1(a) to (c) above are carried out. In addition, each of these prescribed licensees, shall ensure that the other prescribed licensees so involved are immediately notified of the SRE. For the avoidance of doubt, a prescribed licensee or persons shall be deemed to be involved in an SRE, if that prescribed licensee or persons: -

- (a) identified the SRE; or
- (b) provided services and/or care to the patient involved in the SRE, any time during the period commencing on the date the SRE occurred and ending on the date the SRE was notified to CQPV pursuant to paragraph 5.1(b) above.

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<sup>5</sup> Available at <https://elis.moh.gov.sg/NQAS/login/login.action>.

## 6. COMPOSITION OF THE SRE QAC

6.1. Where only one prescribed licensee or person is directly and/or indirectly involved in an SRE, the prescribed licensee (if any) shall convene an SRE QAC that comprises the following individuals:

- a) an SRE QAC supervisor pursuant to paragraph 4.1(d) and (e) above;
- b) a fully registered medical practitioner doctor who has experience in the relevant discipline;
- c) a medical, nursing or allied health professional;
- d) a non-clinical staff (including but not limited to an administrator, Quality Coordinator, Quality Manager or equivalent); and
- e) such other individual(s) as the Director of Medical Services may appoint.

6.2 The individual(s) referred to in paragraph 6.1(e) above may be appointed at the sole discretion of the Director of Medical Services:

- a) at any stage of the review by the SRE QAC, to observe the said review as MOH's representative;
- b) within **thirty (30) calendar days** of the date of the SRE QAC's submission of its report pursuant to paragraph 8.1, to evaluate the findings and recommendations in that report and provide his/their views as independent expert(s) in the relevant discipline(s) to the relevant SRE QAC that is reconvened by the prescribed licensee pursuant to paragraph 8.3.

6.3 Where more than one prescribed licensee and/or person are directly and/or indirectly involved in an SRE ("**Several Persons**"), the prescribed licensee(s) shall convene an SRE QAC comprising of the following individuals, who may be appointed and/or assigned by any one of the Several Persons:

- a) the individuals set out in paragraph 6.1(a) to (d);
- b) at least one representative from each of the Several Persons; and
- c) at least one independent expert in the relevant disciplines. The independent expert(s) shall not be employed by the Several Persons.

6.4 Depending on the size of the licensed premise and the volume of cases to be reviewed:

- a) the same members may sit on multiple SRE, Mortality & Morbidity and/or

- Peer Review Learning quality assurance committees; and
- b) the reviews by the quality assurance committees referred to in paragraph 6.4(a) may be held concurrently,

provided that each review is carried out in accordance with the relevant licensing terms and conditions.

## **7. REVIEW OF SERIOUS REPORTABLE EVENTS**

7.1 For each identified SRE, the SRE QAC shall conduct an RCA to identify system failures and contributing factors, and make recommendations to the prescribed licensee to improve the quality of the licensable healthcare service and to prevent the occurrence or recurrence of similar SREs. The SRE QAC shall also review the feasibility of any interim measures that were put in place by the prescribed licensee pursuant to paragraph 5.1(a).

7.2 Aggregate RCAs may be performed on a quarterly basis for the following SREs when the circumstances surrounding the events are similar:

- a) SRE No. 11 of Table 1 of paragraph 3.1, where it relates to attempted suicide or self-harm by a patient that did not result in that patient's death; and
- b) SRE No. 16 of Table 1 of paragraph 3.1, where it relates to medication errors falling within Categories E and F of Appendix 2.

An aggregate RCA refers to one or more SRE QAC meetings convened to conduct RCA on a category of cases specified in paragraph 7.2 that have been identified over the preceding quarter of the relevant calendar year. For example, if 12 SREs falling under S/No. 11 of Table 1 of paragraph 3.1, involving attempted suicide by a patient that did not result in that patient's death were identified from January to March 2022, then only one SRE QAC meeting may be convened to conduct an RCA on those 12 cases collectively.

7.3 The review of an SRE by the SRE QAC shall be carried out regardless of whether the SRE is reportable under any other statutory requirements such as the Coroners Act 2010 or any prevailing policy.

## **8. SUBMISSION OF REPORTS AND REVIEW BY MOH**

8.1 The SRE QAC shall complete its review and submit a report containing its findings and recommendations to CQPV within **60 calendar days** of the date the CQPV was notified of the SRE pursuant to paragraph 5.1(b). The report shall be submitted:

- a) on NQAS<sup>6</sup> in the provided form titled '*SRE Review Report Form*'; or
- b) in the event of network connection or technical issues, via electronic mail to [moh\\_nqas@moh.gov.sg](mailto:moh_nqas@moh.gov.sg) or such other address as may be prescribed, in the form of the '*SRE Review Report Form*' as set out in Annex B to Appendix 4.

8.2 Notwithstanding paragraph 8.1, if the SRE QAC opts to conduct an aggregate RCA pursuant to paragraph 7.2, the SRE QAC shall complete its review and submit a report containing its findings and recommendations to CQPV within **sixty (60) calendar days** of the last day of the relevant quarter of the calendar year in which CQPV was notified of the SRE pursuant to paragraph 5.1(b) in accordance with paragraph 8.1(a) and (b). For example, if the prescribed licensee notifies CQPV of three (3) SREs occurring in January to March of a calendar year for which an aggregate RCA can be performed in accordance with paragraph 7.2 above, an SRE QAC that opts to carry out an aggregate RCA for these three (3) SREs shall submit its report for the aggregate RCA to CQPV within 60 calendar days from 31 March of that calendar year.

8.3 If the Director of Medical Services is of the view that any of the reports submitted by the SRE QACs pursuant to paragraph 8.1 and 8.2 are inadequate or in need of further clarification, he may, at his sole discretion, require the prescribed licensee to and the prescribed licensee shall, reconvene the relevant SRE QAC to review its report and incorporate the views on any independent expert(s) that may be appointed by the Director of Medical Services pursuant to paragraph 6.2(b). The reconvened SRE QAC shall then submit its revised report to CQPV within **thirty (30) calendar days** of the date of notification by the Director of Medical Services to revise its report. The report shall be submitted:

- a) on NQAS<sup>7</sup> in the provided form titled '*SRE Review Report Form*'; or
- b) in the event of network connection or technical issues, via electronic mail to [moh\\_nqas@moh.gov.sg](mailto:moh_nqas@moh.gov.sg) or such other address as may be prescribed, in the form of the '*SRE Review Report Form*' as set out in Annex B to Appendix 4.

8.4 If any of the reports submitted pursuant to paragraphs 8.1 to 8.3 have recommendations that have yet to be implemented by the prescribed licensee, the

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<sup>6</sup> Available at <https://elis.moh.gov.sg/NQAS/login/login.action>.

<sup>7</sup> *Supra*, note 10. Available at <https://elis.moh.gov.sg/NQAS/login/login.action>.

relevant SRE QAC that submitted the report shall submit progress reports regarding the status of the implementation to CQPV at half-yearly intervals until all the recommendations have been implemented. The progress reports shall be submitted:

- a) on NQAS<sup>8</sup> in the provided form titled '*SRE Follow-up Report Form*'; or
- b) in the event of network connection or technical issues, via electronic mail to [moh\\_nqas@moh.gov.sg](mailto:moh_nqas@moh.gov.sg) or such other address as may be prescribed, in the form of the '*SRE Follow-up Report Form*' as set out in Annex C to Appendix 4.

8.5 Where more than one prescribed licensee or persons are directly and/or indirectly involved in an SRE, the prescribed licensees shall ensure that at least one review report and one follow-up report is submitted pursuant to paragraphs 8.1 to 8.4.

8.6 The prescribed licensee shall furnish the Director of Medical Services, as and when required by him, with:

- a) the details of the implementation status of specific recommendations made by the SRE QAC(s); and
- b) such records relating to any other quality assurance activity undertaken by the prescribed licensee.

## **9. MATTERS TO BE REFERRED FOR DISCIPLINARY INQUIRY**

9.1 The prescribed licensee shall convene a separate disciplinary inquiry if the SRE involves the death of a patient or a clinical incident that resulted from:

- a) a criminal act or deliberate patient harm;
- b) the use of alcohol or illicit drugs;
- c) a deliberate or grossly negligent unsafe act; and/or
- d) professionally unethical practice

on the part of a registered healthcare professional(s), regardless of whether these actions were identified prior to the commencement or during the course of an SRE QAC review.

9.2 Prescribed licensees shall ensure that policies for the suspension, limitation,

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<sup>8</sup> This also applies to HCSA licensees that are not prescribed licensees if the implementation of the recommendations involves them in any way.

reduction of privileges or termination of these registered healthcare professional(s) are in place at the point when such cases are being referred for disciplinary inquiry so as to prevent harm to any individual.

## **10. ACTION BY MOH**

10.1 The Director of Medical Services may, at his sole discretion direct the prescribed licensee to conduct an SRE QAC review for any patient safety incident. MOH may also, at its sole discretion, conduct on-site reviews on selected patient safety incidents at the licensed premises of prescribed licensees.

10.2 To ensure that the requirements of these LCs are complied with, MOH may, at its discretion, conduct periodic checks to ensure that:

- a) the recommendations of the SRE QACs have been implemented;
- b) patient safety measures have been instituted in the licensed premises of a prescribed licensee; and
- c) the patient safety measures that were recommended by the SRE QACs and/or implemented by the prescribed licensees are effective in preventing the recurrence of similar events.

**SPECIFICATIONS OF SERIOUS REPORTABLE EVENTS****A. SURGICAL OR INVASIVE PROCEDURE ADVERSE EVENTS****1. Surgery or other invasive procedure performed on the wrong body site**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Surgery or other invasive procedure</i>” includes but is not limited to image-guided interventional procedures, endoscopies, lesion removal, and injection into joints.</li> <li>• “<i>Performed on the wrong body site</i>” means that the procedure is carried out on a body site that is not consistent with the correctly documented informed consent for that patient.</li> </ul>	<p>The correctly documented informed consent for patients whose procedures are carried out beyond the confines of an operating room (e.g. radiology suite, ward, ICU, etc.) may not involve a “surgical consent form”; however, the informed consent of that patient is still required to be documented in the patient record.</p> <p>An incorrectly placed surgical mark (i.e. site marking) does not, in itself, constitute a surgery or other invasive procedure being performed on the wrong body site. It is necessary for the surgery or other invasive procedure to have begun in order to give rise to this SRE.</p> <p>A surgery or other invasive procedure that was performed at the wrong body site and corrected during the procedure still falls within the ambit of this SRE.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Surgery or other invasive procedure performed on the correct body <i>part</i> but on the wrong body site (e.g. left/right, appendages/organs, wrong digit, wrong level of the spine, stent place in the wrong iliac artery, steroid injection into the wrong knee, biopsy of the wrong mole, burr hole on the wrong side of the skull) regardless of the setting in which it occurs (e.g. post-anaesthesia recovery unit, surgical suite, endoscopy unit, ward or clinic, etc.).</li> </ul>

	<ul style="list-style-type: none"> <li>• Surgery or other invasive procedure that inserted the correct implant, prosthesis or invasive device, but on the wrong body site.</li> </ul> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Changes in procedural plan upon entry into the patient with discovery of pathology in close proximity to the intended body site where the risk of a second surgery or procedure outweighs benefit of patient consultation or unusual physical configuration (e.g. adhesions, spine level/extra vertebrae).</li> <li>• Emergent situations that occur in the course of surgery or other invasive procedure and/or whose exigency precludes obtaining informed consent</li> </ul>
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**2. Surgery or other invasive procedure performed on the wrong patient**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• <i>“Surgery or other invasive procedure”</i> includes but is not limited to image-guided interventional procedures, endoscopies, lens implants, lesion removal, injection into joints.</li> <li>• <i>“Performed on the wrong patient”</i> means that the</li> </ul>	<p>The correctly documented informed consent for patients whose procedures will not be carried out in an operating room may not involve a “surgical consent form”; however, the informed consent of that patient is still required to be documented in the patient record.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Surgery or other invasive procedure (whether or not completed) that has begun on one patient but was intended for a different patient.</li> </ul>



<p>procedure is carried out on a patient who is not the patient who gave the correctly documented informed consent to undergo the procedure.</p>	
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**3. Wrong surgery or other invasive procedure performed on a patient**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Surgery or other invasive procedure</i>” includes but is not limited to image-guided interventional procedures, endoscopies, lens implants, lesion removal, injection into joints.</li> <li>• “<i>Wrong surgery or other invasive procedure performed</i>” means that the procedure performed on a patient is not consistent with the correctly documented informed consent for that patient.</li> </ul>	<p>The correctly documented informed consent for patients whose procedures will not be carried out in an operating room may not involve a “surgical consent form”; however, the informed consent of that patient is still required to be documented in the patient record.</p> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Changes in procedural plan upon entry into the patient with discovery of pathology in close proximity to the intended body site where the risk of a second surgery or procedure outweighs benefit of patient consultation or unusual physical configuration (e.g. adhesions, spine level/extra vertebrae).</li> <li>• Emergent situations that occur in the course of surgery or other invasive procedure and/or whose exigency precludes obtaining informed consent.</li> <li>• Surgery or other invasive procedure that inserted the wrong implant, prosthesis or invasive device. Those events will fall within SRE No. 4.</li> </ul>

#### 4. Wrong implant/prosthesis/invasive device inserted

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Wrong implant/prosthesis/invasive device inserted</i>” means the placement of an implant/prosthesis/invasive device into a patient that is other than the implant/prosthesis/invasive device specified in the procedural plan either before or during the procedure.</li> <li>• “<i>Implant/prosthesis/invasive device</i>” include but is not limited to intraocular lens, coronary stents and orthopaedic screws, plates, rods, joint replacements, artificial spinal discs, central venous lines and dialysis catheters.</li> </ul>	<p>For the avoidance of doubt, a wrong implant/prosthesis/invasive device that is inserted into a patient but detected at any time after it is inserted (even before the end of the surgery or other invasive procedure) still falls within the ambit of this SRE.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• The insertion of the wrong implant/prosthesis/invasive device into the correct body site stated in the procedural plan.</li> </ul> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Intended changes to the implant/prosthesis/invasive device from the implant/prosthesis/invasive device specified in the procedural plan, based on clinical judgement at the time of the procedure.</li> <li>• The correct implant/prosthesis/invasive device was placed as per the procedural plan but later found to be suboptimal.</li> </ul>

#### 5. Unintended retention of a foreign object in a patient after surgery or other invasive procedure

<i>Additional specifications</i>	<i>Implementation guidance</i>

<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Unintended retention of a foreign object in a patient after surgery or other invasive procedure</i>” refers to an event whereby a foreign object is introduced into the body of a patient during surgery or other invasive procedure, but is not removed before the end of the surgery or other invasive procedure; and that the failure to remove the foreign object was not intentional.</li> <li>• “<i>Foreign object</i>” includes but is not limited to wound packing material, sponges, catheter tips, trocars and guidewires.</li> </ul>	<p>For the avoidance of doubt, a foreign object that was unintentionally retained in a patient after surgery or other invasive procedure has concluded and is later removed still falls within the ambit of this SRE.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• The unintended retention of foreign objects after surgery or other invasive procedure regardless of setting (e.g. post anaesthesia recovery unit, surgical suite, emergency department, patient bedside, etc.);</li> </ul> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Foreign objects that are already present in the body of the patient prior to the surgery or other invasive procedure that are intentionally left in place after the said surgery or other invasive procedure.</li> <li>• Foreign objects that are intentionally implanted in the patient as part of a planned intervention.</li> <li>• Foreign objects that were introduced into the patient’s body but removed within the same sitting, and not requiring patient to undergo unnecessary procedures.</li> <li>• Foreign objects that were unintentionally retained in the patient’s body but cannot be detected through X-ray (e.g. micro needles) and the risk of its removal had been assessed to exceed the risk of continued retention.</li> </ul>
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**6. Intraoperative or immediately post-operative/post-procedure death in an ASA<sup>9</sup> Class I patient**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Immediately post-operative/post-procedure death</i>” means a death that occurred within 24 hours after: (1) surgery or other invasive procedure was completed; or (2) if the surgery or other invasive procedure was not completed, the administration of anaesthesia.</li> </ul>	<p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Intraoperative or immediately post-operative/post-procedure death of ASA Class I patients, whether or not the planned procedure was carried out.</li> </ul>

**B. PRODUCT OR MEDICAL DEVICE ADVERSE EVENTS**

**7. Patient death or serious injury associated with the use of contaminated drugs, medical devices, or biologics provided by the prescribed licensee**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Contaminated</i>” includes contaminations that can be seen with the naked eye, with the use of</li> </ul>	<p>For the avoidance of doubt, all patient deaths or serious injuries associated with the use of contaminated drugs, medical devices, or biologics provided in the licensed premise of a prescribed licensee will fall within this SRE regardless of the source of the contamination and/or the drug, medical device or biologics in question.</p>

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<sup>9</sup> American Society of Anesthesiologists Physical Status Classification System

<p>detection machines of general use, or with the use of more specialised testing mechanisms (e.g. cultures, nucleic acid testing, mass spectrometry and tests that signal changes in pH or glucose levels). It also includes contaminations that cannot be detected by any of the foregoing but can be inferred from circumstances of the event and potentially changes the risk status for life (e.g. a needle or syringe that has been used to administer medication to a patient by injection or via connection to a patient's intravenous infusion bag or administration set or haemodialysis can be inferred as being contaminated)</p> <ul style="list-style-type: none"><li>• “<i>Drugs</i>” include vaccines or medication (e.g. intramuscular antibiotics)</li><li>• “<i>Medical devices</i>” include the tools used in surgery or other invasive procedure (e.g. scalpels)</li></ul>	<p>Prescribed licensees shall report contaminations that can be seen with the naked eye or with the use of detection mechanisms in general use at such time as they become known to the prescribed licensee.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"><li>• Patient death or serious injury associated with the use of contaminated medical devices or drugs. These could be a result of improper cleaning or maintenance.</li></ul>
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**8. Patient death or serious injury associated with the use or function of a medical device in patient care**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “Medical devices” include but are not limited to catheters, drains and other specialised tubes, infusion pumps, ventilators and procedural and monitoring equipment.</li> </ul>	<p>For the avoidance of doubt, all patient deaths or serious injuries associated with the use or function of a medical device in patient care will fall within this SRE regardless of whether or not the use or function is intended or described by the medical device manufacturers’ literature.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Patient death or serious injury associated with parts related to the medical device (e.g. drill bits and broken screws) that were unintentionally retained in the patient’s body.</li> </ul>

**9. Patient death or serious injury associated with intravascular air embolism that occurs while being cared for in a licensed premise**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>NIL</p>	<p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Patient death or serious injury associated with intravascular air embolism that occurs while undergoing procedures that have a high risk of harm including but not limited to procedures involving the head and neck, vaginal delivery and caesarean section, spinal instrumentation procedures, and liver transplantation, but does not include neurosurgical procedures;</li> <li>• Patient death or serious injury associated with intravascular air embolism that occurs while undergoing procedures that have a low risk of harm including those related to lines placed for</li> </ul>

	<p>infusion of fluids in vascular space.</p> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Patient death or serious injury associated with intravascular air embolism that occurs while undergoing neurosurgical procedures, including those that are known to present a high risk of intravascular air embolism occurring.</li> </ul>
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**C. PATIENT PROTECTION ADVERSE EVENTS**

**10. Unauthorised discharge or release of an infant, a child or any person who lacks capacity, as referred to in section 4(1) of the Mental Capacity Act 2008**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Unauthorised discharge or release</i>” refers to the removal of an infant, child or any person who lacks capacity, as referred to in section 4(1) of the Mental Capacity Act 2008 by an unauthorised person or by an authorised person without specific notification to and approval by the staff of the licensed premises of the prescribed licensee to do so.</li> </ul>	<p>NIL</p>

**11. Patient death or serious injury associated with patient abscondment**

<i>Additional specifications</i>	<i>Implementation guidance</i>
NIL	<p>For the avoidance of doubt, only patient deaths or serious injuries that are associated with abscondments occurring after the patient presents him or herself for care in the licensed premises of a prescribed licensee will fall within the ambit of this SRE.</p> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Death or serious injury associated with abscondment befalling patients who are competent adults with mental capacity that decide to leave the licensed premises of a prescribed licensee, from which care was received, against medical advice;</li> <li>• Death or serious injury associated with abscondment befalling patients who have attempted or committed suicide more than 24 hours after abscondment.</li> <li>• Death or serious injury to patients that have absconded but whose death or serious injury is not associated with the abscondment.</li> </ul>

**12. Patient suicide, attempted suicide or self-harm that results in patient death or serious injury while being cared for in a licensed premise**

<i>Additional specifications</i>	<i>Implementation guidance</i>
NIL	For the avoidance of doubt, all patient suicide, attempted suicide or self-harm that results in patient



	<p>death or serious injury occurring after the patient presents him or herself for care in the licensed premises of a prescribed licensee will fall within the ambit of this SRE, regardless of whether the patient had been admitted or not.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Patient suicide, attempted suicide or self-harm that results in patient death or serious injury while that patient is on home leave (i.e. where the patient is still officially an inpatient of the prescribed licensee but is authorised to go home).</li> </ul> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Patient suicide, attempted suicide or self-harm that results in patient death or serious injury while that patient is not physically present in the licensed premises of a prescribed licensee were provided (other than those patients who are on home leave).</li> <li>• Deaths resulting from patient suicide, attempted suicide or self-harm that were the reason for admission to or presentation of the patient at the licensed premises of a prescribed licensee.</li> <li>• Death or serious injury to the patient after the patient had absconded from the licensed premises of a prescribed licensee.</li> </ul>
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**D. ENVIRONMENTAL ADVERSE EVENTS**

- 13. Any incident in which systems designated for oxygen or other gas to be delivered to a patient contain no gas, the wrong gas or are contaminated by toxic substances

<i>Additional specifications</i>	<i>Implementation guidance</i>
NIL	<p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>Incidents where the oxygen or gas line is attached to a reservoir that is situated distant from the patient care unit or in a tank near the patient such as E-cylinders, anaesthesia machines.</li> </ul>

**14. Patient death or serious injury associated with a burn incurred while being cared for in a licensed premise**

<i>Additional specifications</i>	<i>Implementation guidance</i>
NIL	<p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>Burns resulting from operating room flash fires, hot water, smoking, heated equipment, and any device brought in by the patient. For the avoidance of doubt, the abovementioned events resulting in burns are not exhaustive.</li> </ul>

**15. Patient death or serious injury associated with the use of physical restraints or bedrails while being cared for in a licensed premise**

<i>Additional specifications</i>	<i>Implementation guidance</i>
NIL	<p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>Deaths or serious injury to the Patient where physical restraints or bedrails are implicated in the death (e.g. led to strangulation or entrapment, etc.)</li> </ul>

**V. CARE MANAGEMENT ADVERSE EVENTS**

**16. Patient harm, death or serious injury associated with a medication error falling within Categories E to I of Appendix 2**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>medication error</i>” includes but is not limited to the following events: - <ul style="list-style-type: none"> <li>○ Where there is erroneous, absent, or inappropriate prescription of the drug;</li> <li>○ where the wrong drug was administered;</li> <li>○ where the wrong dosage was administered;</li> <li>○ where the drug was administered to the wrong patient;</li> <li>○ where the drug was administered at the wrong time;</li> <li>○ where the drug was administered at the wrong rate;</li> <li>○ when the administered drug was wrongly prepared;</li> <li>○ where the drug was administered through the wrong route or with the wrong/poor technique;</li> <li>○ where the indicated drug was omitted from being administered;</li> <li>○ where an expired drug was administered;</li> <li>○ the administration of a drug to a Patient where the Patient has a known allergy or serious contraindication to the said drug;</li> <li>○ the administration of drugs to a Patient causing a drug-drug interaction or polypharmacy in the Patient for which there is a known potential for death or serious injury;</li> <li>○ improper use of single-dose/ single-use and multi-dose medication vials and containers for a Patient</li> </ul> </li> </ul>	<p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Harm, death or serious injury to the Patient that occurs at any stage of the medication management process (e.g. prescribing, preparation, dispensing, administration, and therapeutic monitoring);</li> <li>• For the avoidance of doubt, medication errors including occurrences in which a patient receives a contraindicated medication or for which the patient is known to have serious allergies to, resulting in harm, serious injury or death. These events may occur as a result of failure to collect information about contraindications or allergies, failure to review such information available in information systems, failure of the organisation to ensure availability of such information in the care delivery process or other system failures that are determined through investigation to be the cause of the adverse event.</li> </ul> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Harm, death or serious injury to the Patient associated with allergies or adverse drug reactions that could not reasonably have been known or discerned in advance of the event</li> <li>• Harm, death or serious injury to the Patient associated with reasonable differences in clinical judgment on the drug selection and dose.</li> </ul>

resulting in dose adjustment problems to the Patient.	
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**17. Patient death or serious injury or risk thereof associated with the unsafe administration of blood or blood products**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Patient death or serious injury</i>” includes but is not limited to haemolytic reactions, and organ rejections that are attributable to hyper-acute haemolytic reactions.</li> <li>• “<i>unsafe administration of blood and blood products</i>” includes but is not limited to, administering blood or blood products to the wrong patient; administering blood or blood products to a patient that is of a blood type that does not correspond to the blood type of that patient; administering blood or blood product that have been improperly stored or handled; and where the Rhesus Status, Antibody, Cross-</li> </ul>	<p>This event is intended to capture patient death or injury that could be prevented by blood typing/screening.</p> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Organ rejection that is not attributable to a hyper-acute haemolytic reaction</li> </ul>

Matching and ABO-Matching screenings were not done adequately.	
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**18. Transmission of communicable diseases following blood transfusion or organ/tissue transplant**

<i>Additional specifications</i>	<i>Implementation guidance</i>
NIL	<p>For the avoidance of doubt, this event is not intended to capture cases of non-seroconversion – <i>i.e.</i> cases where the Patient is positive for a certain communicable disease prior to the transfusion or transplant (e.g. a HBV patient receiving a transplant).</p> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Where the transmission of the communicable disease occurred more than 1-year after the transfusion or transplant.</li> </ul>

**19. Maternal death or serious injury associated with pregnancy or delivery**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Pregnancy or delivery</i>” includes all pregnancies or deliveries regardless of the risk.</li> </ul>	<p>Includes maternal death or serious injury that occur within 42 days post-delivery.</p> <p>Root Cause Analysis (Annex B) is not required for maternal death resulting from pulmonary or amniotic fluid embolism, acute fatty liver of pregnancy or cardiomyopathy, where the prescribed licensee has reviewed the incident and concluded that there is no potential learning value.</p>

**20. Infant death or serious injury associated with labour or delivery in a low-risk**

**pregnancy**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Infant death or serious injury</i>” includes but is not limited to fractures, head injuries and intracranial haemorrhage.</li> </ul>	NIL

**21. Patient death or serious injury resulting from the irretrievable loss of a biological specimen**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Death or serious injury</i>” includes the changing of the patient’s risk status for life (as a result of an undiagnosed disease or threat of disease), requiring monitoring that was not needed before the event.</li> <li>• “<i>Irretrievable loss of a biological specimen</i>” refers to the loss of a biological specimen where it is not possible to secure a replacement or a repeat/separate surgery or procedure is</li> </ul>	<p>For the avoidance of doubt, this event can occur with incisional and excisional biopsy, and in organ removal.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Death or serious injury to the Patient where biological specimens are misidentified, analysed with the wrong diagnostic test, and discarded before the correct procedure can be carried out;</li> <li>• Death or serious injury to the Patient resulting from the loss of a biological specimen and another procedure cannot be done to produce a similar specimen;</li> </ul>

<p>required to be carried out on the Patient to replace the lost biological specimen.</p>	
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**22. Patient death or serious injury resulting from failure to follow up or communicate clinical test results**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Death or serious injury</i>” includes the new diagnosis of an advancing stage of an existing diagnosis (e.g. cancer).</li> <li>• “<i>Failure to follow up or communicate</i>” includes both communication between healthcare staff and communication with the Patient or the Patient’s authorised person.</li> <li>• “<i>Clinical tests</i>” include but are not limited to laboratory, pathology and radiology tests.</li> </ul>	<p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Patient suffering from kernicterus as a result of the failure to report an increased neonatal bilirubin levels between the healthcare staff.</li> </ul>

**23. Unexpected death<sup>10</sup> or serious injury as a result of lack of treatment or delay in treatment which was preventable**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Death or serious injury</i>” includes: <ul style="list-style-type: none"> <li>○ all cases falling under Category 3 Mortality as identified via Mortality &amp; Morbidity Review (see Appendix 3); and</li> <li>○ all preventable mortalities arising from the lack of treatment/diagnosis not classified above.</li> </ul> </li> </ul>	NIL

**24. Unexpected death or serious injury as a result of medical intervention which was preventable**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>Death or serious injury</i>” includes: <ul style="list-style-type: none"> <li>○ all cases falling under Category 3 Mortality as identified via Mortality &amp; Morbidity</li> </ul> </li> </ul>	NIL

<sup>10</sup> Category 3 mortality, see Appendix 3



<p>Review (see Appendix 3); and</p> <ul style="list-style-type: none"> <li>○ all preventable mortalities arising from a medical treatment/procedure/diagnosis not classified above and the deleterious effects associated with it.</li> </ul>	
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**25. Any assisted human reproductive procedure which has or, may have, resulted in insemination of wrong gamete or transfer of wrong embryo**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “Assisted human reproductive procedure” is defined as any procedure associated with the procurement, testing, processing, storage or distribution of gametes or embryos intended for human application, and any event in relation to a donor of gametes or a person who receives treatment or services on assisted reproduction</li> </ul>	<p>NIL</p>

**26. Ionising radiological procedure performed on (i) wrong patient; (ii) wrong site; or wrong ionising radiological procedure performed on patient**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “Ionising <i>radiological procedure</i>” includes, but is not limited to, X-Ray, CT Scans, but excludes image-guided interventional procedures which are reportable under SRE No. 1 and 2.</li> <li>• “<i>Performed on ... wrong patient</i>” means that the procedure is carried out on a patient who is not the patient who gave the correctly documented informed consent to undergo the procedure.</li> <li>• “<i>Performed on ... wrong site</i>” means that the procedure is carried out on a body site that is not consistent with the correctly documented informed consent for that patient</li> <li>• “<i>Wrong radiological procedure performed</i>” means that the procedure performed on a patient is not consistent with the</li> </ul>	<p>For the avoidance of doubt, this event applies to diagnostic radiology</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• Ionising radiological procedures initiated on one patient when it is intended for a different patient;</li> <li>• Ionising radiological procedures initiated on the wrong location/site on the body;</li> <li>• Wrong ionising radiological procedure initiated on the intended patient.</li> </ul> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• General X-rays and bone mineral densitometry performed outside the abdominal pelvic region; and</li> <li>• Mammography and dental X-rays</li> </ul>

correctly documented informed consent for that patient.	
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**27. Ionising radiological procedure performed on pregnant patient**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i><b>Ionising Radiological procedure</b></i>” includes, but is not limited to, X-Ray, CT Scans, but excludes image-guided interventional procedures which are reportable under SRE No. 1 and 2.</li> </ul>	<p>For the avoidance of doubt, this event applies to diagnostic radiology.</p> <p>This event is intended to capture any ionising radiological procedure that may result in unintended delivery of radiation to the foetus in a pregnant patient, as may occur due to failure to confirm the pregnancy status of the patient before carrying out the procedure; or the failure to adequately and appropriately shield the patient for the procedure.</p> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• Emergent situations where the benefit of performing the procedure outweighs the risk of radiation to the foetus due to the procedure;</li> <li>• General X-rays and bone mineral densitometry performed outside the abdominal pelvic region; and</li> <li>• Mammography and dental X-rays</li> </ul>

**28. Radiopharmaceutical and contrast media administered (a) to the wrong patient; (b) through the wrong route; or (c) with a wrong type, dose**

Additional specifications	Implementation guidance
For the purposes of this	For the avoidance of doubt, this event applies to

<p>SRE:</p> <ul style="list-style-type: none"> <li>• “Administered ... to the wrong patient” means that the radiopharmaceutical and contrast media is administered to a patient who is not the patient who gave the correctly documented informed consent to undergo the procedure.</li> <li>• “Administered ... to the wrong route, type or dose” means that the radiopharmaceutical and contrast media is administered through a route, or with a type or dose different from that intended for the patient.</li> </ul>	<p>diagnostic and therapeutic procedures.</p> <p>Events that fall within this SRE include:</p> <ul style="list-style-type: none"> <li>• A nuclear medicine study performed on the wrong patient;</li> <li>• Administration of radiopharmaceutical or contrast media to the wrong patient;</li> <li>• Wrong type or dose of radiopharmaceutical or contrast media administered – whether for diagnostic<sup>11</sup> or therapeutic<sup>12</sup> purposes.</li> </ul>
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**29. Radiation therapy delivered (a) to the wrong body site; (b) to the wrong patient; or (c) with a wrong dose**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “delivered ... to the wrong body site” means that the radiation therapy</li> </ul>	<p>For the avoidance of doubt, this event applies to radiation oncology procedures.</p>

<sup>11</sup> “any diagnostic exposure greater than 50% of the intended dose or resulting in doses repeatedly or substantially exceeding the established normal doses for diagnostic radiological examinations” *Radiation Protection (Ionising Radiation) Regulations 2000, 49(2)(b)*

<sup>12</sup> “any therapeutic treatment with a dose or dose fractionation which differs by more than 10% of the value prescribed or which may lead to acute effects” *Radiation Protection (Ionising Radiation) Regulations 2000, 49(2)(a)(iii)*

<p>is carried out on a body site that is not consistent with the correctly documented informed consent for that patient</p> <ul style="list-style-type: none"> <li>• “<i>delivered... to the wrong patient</i>” means that the radiation therapy is carried out on a patient who is not the patient who gave the correctly documented informed consent to undergo the procedure.</li> <li>• “<i>delivered... to the wrong dose</i>” means that the radiation therapy is carried out with a radiation dose different from the dose intended for the patient.</li> </ul>	
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**30. Death or serious injury of a patient associated with the introduction of a metallic object into the MRI area**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>For the purposes of this SRE:</p> <ul style="list-style-type: none"> <li>• “<i>metallic object</i>” includes those that are inside the patient’s body (e.g. retained foreign objects, pacemakers and other metal implants or pumps)</li> </ul>	<p>NIL</p>

<p>such as implantable pumps and penile implants) and those that are outside the patient's body but act as projectiles.</p>	
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**E. PATIENT SAFETY INCIDENTS**

**31. Unintended harm or risk thereof to a patient while being cared for in a licensed premise.**

<i>Additional specifications</i>	<i>Implementation guidance</i>
<p>NIL</p>	<p>This is intended to capture any patient safety incident that:</p> <ul style="list-style-type: none"> <li>• is not an adverse event falling within SRE No. 1 to 30; and</li> <li>• has significant learning value.</li> </ul> <p>Events that <u>do not</u> fall within this SRE or are excluded from this SRE include:</p> <ul style="list-style-type: none"> <li>• fall during the process of care, and the root cause of the event is solely attributable to patient factor(s);</li> <li>• pressure ulcer acquired after admission/presentation to a licensed premises providing licensable healthcare services, and the root cause of the event is solely attributable to patient factor(s);</li> <li>• NCC MERP Medication Error Categories A to D (refer to Appendix 2);</li> <li>• expected complications that arose from appropriate care;</li> <li>• patient harm or risk due to change(s) in care plan or procedure where the deemed benefit of the change outweighs the risk from the initial plan or procedure</li> </ul>

	<p>In the event there is a patient safety incident that is not an adverse event falling within SRE No. 1 to 30 and <u>does not</u> have significant learning value, prescribed licensees who wish to alert and prevent the occurrence of such a patient safety incident in licensed premises of a prescribed licensee may also rely on this SRE No. 31 to report and investigate it under the existing SRE QAC process.</p>
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**CATEGORIES OF MEDICATION ERRORS<sup>13</sup>**

1. **Category A** Circumstances or events that have the capacity to cause error
2. **Category B** An error occurred but the error did not reach the patient
3. **Category C** An error occurred that reached the patient but did not cause harm to the patient
4. **Category D** An error occurred that reached the patient and required monitoring to confirm that it resulted in no harm to the patient and/or required intervention to preclude harm
5. **Category E** An error occurred that may have contributed to or resulted in temporary harm to the patient and required intervention
6. **Category F** An error occurred that may have contributed to or resulted in temporary harm to the patient and required initial or prolonged hospitalisation
7. **Category G** An error occurred that may have contributed to or resulted in permanent harm to the patient
8. **Category H** An error occurred that required intervention necessary to sustain life
9. **Category I** An error occurred that may have contributed to or resulted in the patient's death

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<sup>13</sup> As defined by the National Coordinating Council for Medication Error Reporting and Prevention (NCC MERP)



**CATEGORIES OF MORTALITY**

**Category 1:** Expected death

Includes death:


- a) due to terminal illness (anticipated by clinicians and family);
- b) following cardiac or respiratory arrest before arriving at the hospital; or
- c) which occurred despite medical interventions.

**Category 2:** Unexpected death which was not reasonably preventable.

**Category 3:** Unexpected death which was possibly preventable and was:

- a) due to lack of treatment or delay in treatment; or
- b) caused by medical intervention.

**Annex A - SRE Notification Form**

Downloadable version:	 SRE Notification Form - Annex A.xlsx
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**Annex A. SRE Notification Form**

**To:**

SRE Notification Officer  
 Clinical Quality, Performance and Value Division  
 Ministry of Health  
 College of Medicine Building  
 16 College Road  
 Singapore 169854

Email: [moh\\_nqas@moh.gov.sg](mailto:moh_nqas@moh.gov.sg)

**From:**

Name: \_\_\_\_\_  
 Designation: \_\_\_\_\_  
 Tel: \_\_\_\_\_  
 E-mail: \_\_\_\_\_  
 Date: \_\_\_\_\_

**(For MOH's use) MOH's Remarks:**

		<b>(For MOH's use) Status:</b>	
<b>Institution*:</b>	<input type="text"/>	<b>Potential Media Sensitive?:</b>	No
<b>Institution (others):</b>	_____	<b>Incident Ref Number:</b>	2020 <sup>1</sup> / ____ <sup>2</sup>
<b>Date of event occurrence*:</b>	____ / ____ / ____ (dd) (mm) (yy)	<b>Date identified as SRE<sup>3</sup>*:</b>	____ / ____ / ____ (dd) (mm) (yy)
<b>Time of Event Occurrence:</b>	_____ : _____ (24-hr format)	<b>Case reported to the Coroner*:</b>	_____
<b>Location*:</b>	_____	<b>Discipline*:</b>	_____
<b>Other Location:</b>	_____	<b>Other Discipline:</b>	_____
<b>Age of patient*:</b>	_____	<b>Race*:</b>	_____
<b>Gender*:</b>	_____	<b>Discharge Date:</b>	____ / ____ / ____ (dd) (mm) (yy)
<b>Admission/Consultation Date*:</b>	____ / ____ / ____ (dd) (mm) (yy)	<b>Paying Status (Outpatient):</b>	_____
<b>Ward Class (Inpatient):</b>	_____	<b>Other Subject Outcome:</b>	_____
<b>Subject Outcome<sup>4</sup>*:</b>	_____		
<b>Incident Type*:</b>	<input type="text"/>		
<b>Specify 'Others':</b>	_____		

<sup>1</sup> Refers to the calendar year in which the serious reportable event has occurred

<sup>2</sup> This number is to be assigned by the institution to serialize all serious reportable events that occur during the calendar year.

<sup>3</sup> The QAC that reviews the SRE shall notify the Clinical Quality, Performance and Value Division, Ministry of Health, of a SRE within 2 working days of the date of the event being identified

<sup>4</sup> Indicate outcome of the event as of the report date.

**Incident Summary:**

**Additional Information:**


**Patient/Family  
Notified\*:**

**Notification Source:**

**Other Notification Source:**

**SMS Notification:**

## Annex B - SRE Review Report Form

Downloadable version:	 SRE Review Report Form - Annex B.xlsx
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### Annex B. SRE Review Report

**To:**

SRE Notification Officer  
Clinical Quality, Performance and Value Division  
Ministry of Health  
College of Medicine Building  
16 College Road  
Singapore 169854

Email: [moh\\_nqas@moh.gov.sg](mailto:moh_nqas@moh.gov.sg)

**From:**

Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Tel: \_\_\_\_\_

E-mail: \_\_\_\_\_

Date: \_\_\_\_\_

Institution: \_\_\_\_\_

Incident Ref No.: 2022<sup>1</sup> /     00<sup>2</sup>

<sup>1</sup> Should correspond to the serial number assigned in the Serious Reportable Event Notification Form

(For MOH's use) Status:

(For MOH's use) MOH's Remarks:

The QAC that reviews the serious reportable event shall complete the review and submit this Serious Reportable Event Review Report within 60 calendar days from the date of the Serious Reportable Event Notification Form.

LEVEL OF ANALYSIS	
<b>1. EVENT</b>	<b>(a) Detailed chronological description of the event</b>
<p>(1) Describe in detail what happened in chronological order.</p> <p>For serious reportable events which resulted in death, please state the cause of death signed up in the Certificate of Death;</p> <p><b><u>OR</u></b></p> <p>If the event is reported as a Coroner's case, please state that it is a Coroner's case and indicate the cause of death, ascertained by the Coroner (if available).</p>	

LEVEL OF ANALYSIS		
2. FAILED PROCESS(ES) INVOLVED IN THE SERIOUS REPORTABLE EVENT	(a) Breakdown of process(es) into key steps	Tick failed process(es) identified
<p>(2) Refers to the process(es) that culminated in the serious reportable event</p> <p>(a) Process(es) can be broken down into a series of concise, pertinent key steps i.e. Step 1 → step 2 → step 3, etc., eventually resulting in the serious reportable event. This information can be distilled from column 1(a).</p> <p>(b) Only tick failed process(es) identified.</p>	1	<input type="checkbox"/>
	2	<input type="checkbox"/>
	3	<input type="checkbox"/>
	4	<input type="checkbox"/>
	5	<input type="checkbox"/>
	6	<input type="checkbox"/>
	7	<input type="checkbox"/>
	8	<input type="checkbox"/>
	9	<input type="checkbox"/>
	10	<input type="checkbox"/>
	11	<input type="checkbox"/>
	12	<input type="checkbox"/>
	13	<input type="checkbox"/>
	14	<input type="checkbox"/>
	15	<input type="checkbox"/>

<b>LEVEL OF ANALYSIS</b>			
<b>3. SYSTEM AND HUMAN FACTORS CONTRIBUTING TO FAILED PROCESS(ES)</b>	<b>(a) Failed process(es) identified</b>	<b>(b) System and human factors identified (i.e. root causes)</b>	<b>(c) Risk reduction strategies and proposed implementation – what, when and who</b>
<p>(3) Refers to specific factors that contributed to the failed process(es) in 2(a) which can either be system, human factors or a combination of both (usually the case)</p> <p>(a) Indicate failed process(es).</p> <p>(b) Identify system and human factors and state root cause(s) within brackets E.g. Lack of formalised protocol for determining the side of operation in OT (lack of protocol).</p> <p>(c) Detail the risk reduction strategies to correct the root cause(s) that contributed to the failed process(es). Please indicate what these strategies are, when these strategies will be implemented and who these strategies target.</p> <p>E.g. To implement a preoperation protocol by dd/mm/yy, to be circulated to all OT staff and doctors for compliance.</p>			

## **Annex C - SRE Follow-up Report Form**

Downloadable version:



SRE Follow-up  
Report Form - Anne:

### **Annex C. SRE Follow-up Report**

<i>To:</i>	
SRE Notification Officer Clinical Quality, Performance and Value Division Ministry of Health College of Medicine Building 16 College Road Singapore 169854	
Email:	<a href="mailto:moh_ngas@moh.gov.sg">moh_ngas@moh.gov.sg</a>
<i>From:</i>	
Name:	_____
Designation:	_____
Tel:	_____
E-mail:	_____
Date:	_____
Institution:	_____
Incident Ref No.:	2022 <sup>1</sup> / <u>00</u> <sup>2</sup>



Root causes identified:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_

S/N	Recommendations	Proposed date of Implementation	Date of Implementation	Remarks
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				