Western Sussex Hospitals NHS
NHS Trust

Variations in Hospital Mortality Project - Data Collection Tool

N.B. exclusions: Maternal deaths; <16; Psychiatric; Trauma

Please place a cross (X) in the box/es and write in the frames using BLACK BIRO.

Review date ☐☐ / ☐☐ / ☐☐☐☐

Reviewer ID 1 ☐ Time taken to evaluate (hh:mm) ☐☐:☐☐

Reviewer ID 2 ☐ Time taken to evaluate (hh:mm) ☐☐:☐☐

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1. Overview of admission leading to death (index admission)

Weekday of admission

☐ Mon ☐ Tues ☐ Weds ☐ Thurs ☐ Fri ☐ Sat ☐ Sun

Date of index admission ☐☐ / ☐☐ / ☐☐☐☐

Time of index admission (24 hr clock) ☐☐:☐☐

Time first seen by consultant (24 hr clock) ☐☐:☐☐

Weekday death occured

☐ Mon ☐ Tues ☐ Weds ☐ Thurs ☐ Fri ☐ Sat ☐ Sun

Date of in-hospital death ☐☐ / ☐☐ / ☐☐☐☐

Type of admission:

☐ Em ☐ El ☐ Other If 'Other' please state

Primary diagnosis at admission:

Previous (n) visits to A&E: ☐☐

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Degree of urgency of index admission (one only) ☐ C ☐ U ☐ S ☐ R

C*ritical (required immediate attention to stabilise airway, breathing or circulation difficulties)*
U*rgent (severe illness that required treatment within 2 hrs- eg moderate pain, fever / infection, conscious level, bleeding)*
S*emi-urgent (unwell- admitted via A&E or OPD but could wait >2 hrs to be treated without risk of deterioration)*
R*outine (elective admission, or for routine investigations in hospital)*

LACE score (see notes for assessors):

L: length of stay (days) ☐☐

A: acute admission ☐ Yes ☐ No

C: comorbidity (Charlson comorbidity score) ☐☐

E: emergency visits (no visits to A & E in last 6 months) ☐☐

LACE total ☐☐☐

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2. Patient Information

Age (Years Months) ☐☐☐ ☐☐ Gender ☐ Male ☐ Female

Postcode sector (eg PO18 8) ☐☐☐☐ ☐

Smoker ☐ None ☐ <10 ☐ 10-20 ☐ >20

Was this admission alcohol-related in any way? ☐ Yes ☐ No

Was this admission substance-misuse related in any way? ☐ Yes ☐ No

Lives; (please select one only)

☐ independently alone

☐ own home with carer

☐ residential home

☐ nursing home

☐ homeless

Disabilites; (please select all that apply)

☐ Wheelchair user ☐ Speech

☐ Blind/partially sighted ☐ Learning difficulties

☐ Other sight difficulties ☐ Other (If 'Other' please state)

☐ Deaf

Weight (kg) on admission ☐☐.☐

Height (m) on admission or elsewhere in notes ☐☐.☐

BMI ☐☐.☐

Waterlow Pressure Area Score (see notes for assessors):

☐ <10 ☐ 10+ ☐ 15+ ☐ 20+

DNR (Do Not Resuscitate) order in notes ☐ Yes ☐ No ☐ NK

Patient Unique Study Number C W - ☐☐☐

3. Comorbidities: (Charlson comorbidity scores)

Comorbidities ☐ None ☐ Unknown

Comorbidities - Cardiovascular

- ☐ Acute myocardial infarction (5)
- ☐ Congestive cardiac failure (13)
- ☐ Peripheral vascular disease (6)
- ☐ Other

Cardiovascular Total ☐☐

Comorbidities - Respiratory

- ☐ COPD (4)
- ☐ Asthma
- ☐ Other

Respiratory Total ☐☐

Comorbidities - GI

- ☐ Peptic ulcer (9)
- ☐ Liver disease (mild) (8)
- ☐ Liver disease (severe) (18)
- ☐ Other

GI Total ☐☐

Comorbidities - Psychiatric

- ☐ Dementia (14)
- ☐ Other

Psychiatric Total ☐☐

Comorbidities - Neurological

- ☐ Stroke (11)
- ☐ Epilepsy
- ☐ Parkinson's
- ☐ Paraplegia (non stroke) (1)
- ☐ Other

Neurological Total ☐☐

Comorbidities - Endocrine

- ☐ Diabetes (no end organ complications) (3)
- ☐ Diabetes (end organ complications) (-1)
- ☐ Other

Endocrine Total ☐☐

Comorbidities - Renal

- ☐ Renal disease (10)
- ☐ Other

Renal Total ☐☐

Comorbidities - Infection

- ☐ HIV (2)
- ☐ Other chronic (specify)
- ☐ Other

Infection Total ☐☐

Comorbidities - Cancer

- ☐ Any solid tumour in last 5 years (specify) (8)
- ☐ Known metastatic cancer (14)
- ☐ Leukemia
- ☐ Lymphoma
- ☐ Other

Cancer Total ☐☐

Comorbidities - Musculoskeletal (total score 4)

- ☐ Documented Osteoarthritis
- ☐ Documented Rheumatoid Arthritis (4)
- ☐ Other Connective Tissue Disorder (4)
- ☐ Other

Musculoskeletal Total ☐☐

TOTAL CHARLSON CO-MORBIDITY SCORE: ☐☐

In your opinion, judging by the Gold Standard Framework on End of Life care (see notes), was the patient likely to be in the last year of life? ☐ Yes ☐ No ☐ Don't Know

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4. Adverse Event Triggers (did any of these occur during index admission?)

Adverse event triggers

- ☐ Early warning score absent
- ☐ Early warning score ignored
- ☐ Fall
- ☐ Bedsores or pressure ulcers (incident during admission)
- ☐ Previous admission within 30 days
- ☐ Shock or cardiac arrest
- ☐ Proven DVT or PE
- ☐ Complication of procedure or treatment (severe enough to have potentially contributed to death)
- ☐ Transfer to higher level of care

If surgery took place:

- ☐ Return to theatre
- ☐ Change in planned procedure
- ☐ Removal / injury / repair of organ
- ☐ If admitted for higher dependency care (ESCU / HDU / ICU)
- ☐ Readmission to ESCU / HDU / ICU (delete as appropriate)
- ☐ Readmission to HDU
- ☐ Readmission to ICU
- ☐ Unplanned transfer to ESCU
- ☐ Unplanned transfer to HDU
- ☐ Unplanned transfer to ICU

Attempted resuscitation at terminal event? ☐ Yes ☐ No ☐ Not Known

Medication

- ☐ Vitamin K
- ☐ Naloxone
- ☐ Flumenazil
- ☐ Glucagon or 50% glucose
- ☐ Abrupt stop in medication noted

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Lab tests

- ☐ INR >5
- ☐ Transfusion
- ☐ Abrupt drop in Hb or Hct (>25%)
- ☐ Urea or creatinine risen more than twice admission or baseline levels
- ☐ Na<120 or >160
- ☐ K <2.5 or >6.5
- ☐ Hypoglycaemia (<3 mmol/l)
- ☐ Raised troponin (>1.5 ng/ml)
- ☐ MRSA bacteraemia (incident during admission)
- ☐ C. difficile (incident during admission)
- ☐ Vancomycin resistant enterococcus (VRE)
- ☐ Wound infection
- ☐ Nosocomial pneumonia
- ☐ Positive blood culture

Date of death (as confirmed in notes): ☐☐ / ☐☐ / ☐☐☐☐

Time of death (as confirmed in notes): ☐☐ : ☐☐

Date of last recorded nursing observations: ☐☐ / ☐☐ / ☐☐☐☐

Time of last recorded nursing observations: ☐☐ : ☐☐

Date of last recorded medical note: ☐☐ / ☐☐ / ☐☐☐☐

Time of last recorded medical note: ☐☐ : ☐☐

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5. Avoidability: overview

In 48 hrs prior to death, did the patient receive:

Physio assessment or treatment ☐ Yes ☐ No ☐ Not Known

SLT assessment or treatment ☐ Yes ☐ No ☐ Not Known

Pharmacist assessment / review ☐ Yes ☐ No ☐ Not Known

IV fluids ☐ Yes ☐ No ☐ Not Known

Any change to prescribed medication ☐ Yes ☐ No ☐ Not Known

ECG ☐ Yes ☐ No ☐ Not Known

Plain X ray (any) ☐ Yes ☐ No ☐ Not Known

Ultrasound scan ☐ Yes ☐ No ☐ Not Known

CT or MRI scan ☐ Yes ☐ No ☐ Not Known

During this admission, please describe (if this information is not clear, please say so):

Clinical specialty taking lead role:

Most senior person making clinical decisions (level):

Were there any communication difficulties noted?

Any unusual factors which may have contributed to the death?

In your opinion, was the patient's death **caused by** a problem or problems with the healthcare received? ☐ Yes ☐ No

OR

Did a problem or problems in healthcare **contribute** to the patient's death? ☐ Yes ☐ No

If 'No' to both these questions, go to Page 22 and then no further information is needed

Patient Unique Study Number C W - ☐☐☐

6. Contributory Factors: overview

Please note where, in care pathway, clinical deterioration (**C**), improvement (**I**) or death (**D**) took place: (tick all you think may apply)

Prior to admission:

-home (no involvement of clinical or paramedical teams) ☐ C ☐ I ☐ D

-primary care (in hours) ☐ C ☐ I ☐ D

-primary care (out of hours) ☐ C ☐ I ☐ D

-emergency response team ☐ C ☐ I ☐ D

Index admission:

-care during a procedure ☐ C ☐ I ☐ D

-post-operative care (gen ward) ☐ C ☐ I ☐ D

-post-operative care (critical care setting) ☐ C ☐ I ☐ D

-discharge assessment / planning ☐ C ☐ I ☐ D

In your opinion, did care received in the following categories contribute to the death :

Pre-admission ☐ Avoidable ☐ Unavoidable ☐ Go to Section 6a

Assessment and initial diagnosis ☐ Avoidable ☐ Unavoidable ☐ Go to Section 6b

Clinical monitoring/management/investigations

☐ Avoidable ☐ Unavoidable ☐ Go to Section 6c

Infection screening/control ☐ Avoidable ☐ Unavoidable ☐ Go to Section 6d

Operation or procedure- technical ☐ Avoidable ☐ Unavoidable ☐ Go to Section 6e

Medication/hydration/nutrition/electrolytes ☐ Avoidable ☐ Unavoidable ☐ Go to Section 6f

Resuscitation ☐ Avoidable ☐ Unavoidable ☐ Go to Section 6g

Other ☐ Avoidable ☐ Unavoidable ☐ Go to Section 6h

For each of the above, please go to the relevant section to answer further questions

6a. Pre-admission

a) possible contributory issues

☐ i. delay in making contact with in-hours primary care services

☐ ii. delay in making contact with out-of-hours primary care services

☐ iii. delay in making contact with ambulance services

☐ iv. delay in ambulance services reaching patient

☐ v. other delay in hospital transfer

☐ vi delay in A & E

☐ vii other failure or delay (please specify) _____

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

☐ Major (factor contributed significantly to the death. Different management would reasonably have been expected to alter the outcome)

☐ Minor (factor was a relevant contributory factor. Different management might have made a difference, but survival was unlikely in any case)

☐ Irrelevant (although lessons can be learned, it did not affect the outcome)

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6b. Assessment and initial diagnosis

a) possible contributory issues

☐ i. failure to establish adequate two-way communications with patient

☐ ii delay in initial assessment or evaluation of patient

☐ iii initial clinician failed to obtain complete medical history

☐ iv.routine clinical observations not taken / not recorded

☐ v. routine clinical observations not acted on appropriately

☐ vi.other assessment issue (please specify below)

☐ vii.failure to recognise high-risk status at time of admission

☐ viii.delay in escalating to more senior clinician

☐ ix.failure to escalate to more senior clinician

☐ x other failure or delay (please specify) _____

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

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6c. Clinical management, monitoring, investigations

a) possible contributory issues

- ☐ i. delay in instituting appropriate monitoring of clinical condition
- ☐ ii. failure to institute appropriate monitoring of clinical condition
- ☐ iii. delay in recognising abnormal vital signs / routine observations
- ☐ iv. failure to recognise abnormal vital signs / routine observations
- ☐ v. delay in ordering or checking investigations
- ☐ vi. delay in transfer for investigations
- ☐ vii. delay in recognising abnormalities in investigations
- ☐ viii. failure to recognise abnormalities in investigations
- ☐ ix. delay in recognising clinical deterioration
- ☐ x. failure to recognise clinical deterioration
- ☐ xi. delay in escalating to more senior clinician (following deterioration)
- ☐ xii. failure to escalate to more senior clinician (following deterioration)
- ☐ xiii. delay in response from more senior clinician
- ☐ xiv. specialist advice / referral not available
- ☐ xv. failure to recognise complications of surgery or other procedure
- ☐ xvi. other failure or delay (please specify) _____

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

☐ Major (factor contributed significantly to the death. Different management would reasonably have been expected to alter the outcome)

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☐ Irrelevant (although lessons can be learned, it did not affect the outcome)

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6d. Infection prevention / control / management

Site or nature of infection if believed contributory to death (please select all that apply)

- ☐ surgical wound
- ☐ internal invasive procedure
- ☐ urinary tract
- ☐ respiratory tract
- ☐ blood
- ☐ other (please specify) _____

a) possible contributory issues

- ☐ i. delay in identifying potential infection as relevant to clinical condition
- ☐ ii. delay in initiating appropriate infection screening investigations
- ☐ iii. failure to initiate appropriate infection screening investigations
- ☐ iv. failure to drain pus or other surgical management
- ☐ v. inappropriate antibiotic prescribing
- ☐ vi. failure to maintain proper care of canulae, catheters, drains etc
- ☐ vii. failure to involve appropriately senior clinician (excl CCDC)
- ☐ viii. failure to involve CCDC (if appropriate to do so)
- ☐ ix. failure to initiate appropriate non-drug management (eg physiotherapy)
- ☐ x. other failure or delay (please specify) _____

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

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☐ Minor (factor was a relevant contributory factor. Different management might have made a difference, but survival was unlikely in any case)

☐ Irrelevant (although lessons can be learned, it did not affect the outcome)

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6e. Operation or procedure

a) possible contributory issues

☐ i. inappropriate delay in undertaking procedure

☐ ii. inappropriate procedure in view of clinical condition

☐ iii. inadequate preparation / assessment / treatment prior to procedure

☐ iv. anaesthetic incident

☐ v. operative incident

☐ vi. inadequate monitoring during procedure

☐ vii. inadequate monitoring following procedure

☐ viii. other failure or delay (please specify) _____

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

☐ Major (factor contributed significantly to the death. Different management would reasonably have been expected to alter the outcome)

☐ Minor (factor was a relevant contributory factor. Different management might have made a difference, but survival was unlikely in any case)

☐ Irrelevant (although lessons can be learned, it did not affect the outcome)

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6f. Medication / hydration / nutrition / electrolytes

a) possible contributory issues

☐ i. error in prescription of drugs (please name drug) _____

☐ ii. error in prescription of IV fluids (please name fluid) _____

☐ iii. error in prescription of blood

☐ iv. error in administering drugs

☐ v. error in administering IV fluids

☐ vi. error in administering blood

☐ vii. failure to monitor drug side effects appropriately

☐ viii. failure to monitor fluid balance appropriately

☐ ix. failure to monitor blood appropriately

☐ x. failure to ensure appropriate nutrition

☐ xi. delay in involving appropriately senior clinician

☐ xii. failure to involve appropriately senior clinician

☐ xiii. other failure or delay (please specify) _____

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

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f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

☐ Major (factor contributed significantly to the death. Different management would reasonably have been expected to alter the outcome)

☐ Minor (factor was a relevant contributory factor. Different management might have made a difference, but survival was unlikely in any case)

☐ Irrelevant (although lessons can be learned, it did not affect the outcome)

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6g. Resuscitation

What condition led to the resuscitation attempt? Please give clinical detail where possible

- ☐ Cardiac arrest
- ☐ Respiratory failure / arrest
- ☐ Coma
- ☐ Fits
- ☐ Bleeding
- ☐ Multiple trauma
- ☐ Metabolic disorder
- ☐ Sepsis
- ☐ Other (please specify) _____

a) possible contributory issues

- ☐ i.inappropriate level of seniority of person in charge of resuscitation attempt
- ☐ ii. delay in resuscitation call being made
- ☐ iii. failure to make resuscitation call
- ☐ iv. lack of availability of staff
- ☐ v. staff not apparently competent / adequately trained
- ☐ vi. lack of suitable equipment
- ☐ vii. failure of suitable equipment
- ☐ viii. poorly managed resuscitation attempt
- ☐ ix. delay in involving appropriately senior clinician
- ☐ x. failure to involve appropriately senior clinician
- ☐ xi. other failure or delay (please specify) _____

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

☐ Major (factor contributed significantly to the death. Different management would reasonably have been expected to alter the outcome)

☐ Minor (factor was a relevant contributory factor. Different management might have made a difference, but survival was unlikely in any case)

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6h. Other factors

a) possible contributory issues

☐ i. staff apparently working outside expertise

☐ ii. lack of knowledge / understanding- clinical staff

☐ iii. lack of knowledge / understanding- patient and family / carers

☐ iv. lack of skill- clinical staff

☐ v. staffing pressures- nursing

☐ vi. staffing pressures- clinical

☐ vii. staffing pressures- other multidisciplinary team

☐ viii. poor teamwork

☐ ix.poor communication within clinical team

☐ x. poor clinical handover- nursing

☐ xi. poor written communication (notes poor quality)

☐ xii. lack / failings of equipment

☐ xiii. lack/failings of key hospital support services

☐ xiv. bed shortages

☐ xv. poor co-ordination

☐ xvi. inadequate senior leadership

b) Please describe relevant issue below

c) are there national guidelines or standards related to the relevant factor or event?

i. Please note these guidelines / standards

d) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

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e) Were there local guidelines related to the relevant factor or event?

i. Please note these guidelines/ standards

f) If yes, did non-compliance contribute to the death? ☐ Likely ☐ Possible ☐ Can't tell

g) please note the significance of this factor or event

☐ Major (factor contributed significantly to the death. Different management would reasonably have been expected to alter the outcome)

☐ Minor (factor was a relevant contributory factor. Different management might have made a difference, but survival was unlikely in any case)

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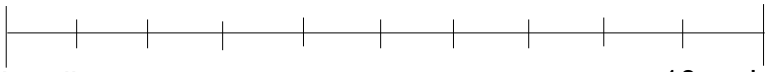
7a. Overall assessment of care

After careful consideration of the clinical details of the patient's management, **irrespective of clinical preventability**, how far do you think that clinical quality factors (in particular the Patient Safety domain) have contributed to this death?

Please place a cross on the Likert scale below, where

0=virtually no evidence for system failure / quality factors in clinical care contributory

10=virtually certain evidence of system failure / quality factors in clinical care contributory



Score= ☐

0 = virtually no evidence for system failure / quality factors in clinical care contributory

10 = virtually certain evidence of system failure / quality factors in clinical care contributory

7b. Documentation standard

Please enlarge on Section 6haii (notes) as to the notes and folders physical and /or consecutive state using the Likert scale below and listing any comments here.

Score= ☐

0 = Hospital notes and folders (physical and consecutive state) in excellent order with virtually no evidence of significant omissions.

10 = Hospital notes and folders (physical and consecutive state) in excellent order with virtually certain evidence of significant omissions, likely to contribute to adverse outcome

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8. Please summarise key learning points from this case:

The following categories are intended as a guide, but please do not necessarily be restricted by them.

☐ a. Referral pathway

☐ b. Equipment

☐ c. Clinical escalation

☐ d. Clinical leadership (once escalated)

☐ e. Consultant opinion /time taken to see

☐ f. Communication

☐ fi. Patient/relatives-clinical staff

☐ ii. Clinical staff-clinical staff

☐ iii. Multidisciplinary team

☐ iv. Clinical handover

☐ g. Diagnosis

☐ h. Diagnostic services

☐ i. Protocols

☐ j. Availability of suitable range of multidisciplinary skills

☐ k. Staffing

☐ i. Suitable qualifications

☐ ii. Training

☐ iii. Supervision

☐ l. planning