MODULE 16 | EMERGENCIES, DISASTERS, SECURITY AND SERVICE CONTINUITY

Maintaining Essential Services and Recovering After Disruption

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LECTURE

Practical hospital governance in Punjab, Pakistan

Keep essential care safe during disruption.
Restore each service with evidence and authority.

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SELF-STUDY PDF

What you should be able to do

A hospital can remain open while a vital service has already become unsafe.

- Identify essential services and dependencies.
- Calculate how long usable resources may last.
- Plan alternatives, escalation and recovery.
- Test the plan and check that failures are corrected.

OFFICIAL SOURCE

A principle tied to a named law, standard or official guidance.

WORKING METHOD

A practical control or teaching format to adapt to the authorised system.

TEACHING CASE

An invented hospital example, used to practise applying the correct process.

Study output

A service-continuity plan, a checked resource estimate and a staged recovery checklist.

Module 16 | Presentation 3 of 3. Allow 45-60 minutes with exercises. All explanations are on the pages; check the cited sources before live use.

Know what the sources establish

This lecture teaches administration. Clinical, engineering and safety decisions need the appropriate specialists.

PHC standards

- FMS Standard 21 addresses infrastructure laws, approvals and plans for primary system failure.
- FMS Standard 22 addresses clinical and support equipment, maintenance and technical support.
- FMS Standard 23 addresses fire and non-fire emergencies, safe exit planning and staff readiness.

Local implementation

- Check the hospital category, licence conditions, departmental orders and emergency plan.
- Use WHO planning guidance to strengthen the local plan; it does not give an MS extra statutory powers.
- The numerical thresholds and working forms in this lecture are teaching examples, not universal requirements.

FMS = Facility Management and Safety. Keep evidence that arrangements work, as well as written policies.

Sources: **C1**:standards 21-23 | **C2**:planning purpose

Plan for the loss of a function

The cause may be a flood, fire, outbreak, power failure, cyber incident or staff shortage.

1	**Identify essential work**	List care and support activities whose interruption can harm patients or prevent other services from operating.
2	**Assess disruption**	Identify the likely loss of staff, location, utilities, equipment, information or supplies.
3	**Prepare alternatives**	Define who acts, the resources required and the approved way to keep essential work functioning.
4	**Test and update**	Check the plan through exercises and actual events; improve arrangements when gaps are found.

WHO provides a planning framework. The hospital must approve practical arrangements that fit its own risks and authority.

Sources: **C2**:service-continuity framework

Assess the consequence of interruption

Working method: a business impact assessment means identifying what a service failure would cause.

01 Service

Name the actual function: emergency dialysis, not simply the renal department.

02 Patients

Identify those already dependent on it and those likely to need it soon.

03 Harm

Describe the likely effect of delay and how that effect changes with time.

04 Dependencies

List people, equipment, supplies, utilities, records and external support.

05 Alternative

Identify a tested substitute, transfer route or safe change in the service.

06 Decision

Name the owner, escalation trigger, approving officer and review time.

Do this with clinical and support leads. Department size and income do not by themselves determine priority.

WORKING METHOD | Illustrative material is identified in the text.

Agree priorities before resources fail

Illustrative categories only: clinical leads must set the actual time limits and safe alternatives.

Category	Example decision
Immediate protection	Support patients whose life-sustaining treatment cannot be interrupted; confirm functioning backups.
Time-sensitive care	Identify patients for whom a delay may cause harm; arrange treatment or an accepted referral in time.
Can be rescheduled	Clinicians review lower-urgency work, inform patients and record a safe follow-up date.
Enables other care	Protect laboratory, blood, pharmacy, cleaning, sterilisation, transport and communications needed by priority services.

“Elective” does not mean harmless to delay. Review each patient and preserve access for new emergencies.

WORKING METHOD | Illustrative material is identified in the text.

A bed is not a complete service

Invented example: an intensive care area reports 12 installed beds.

Required input	Question before declaring capacity
People	Are the required skilled staff available for this shift and the next one?
Utilities	Are oxygen, electricity, water and environmental controls suitable and reliable?
Equipment and supplies	Are monitors, ventilators, medicines and consumables ready for the intended patients?
Support and escalation	Can diagnostics, blood, maintenance and safe referral support this workload?

Declare usable capacity only after the relevant leads confirm all necessary inputs. An empty space is not an ICU bed.

TEACHING CASE | Illustrative material is identified in the text.

Specify who can change or stop a service

Working method: connect the continuity plan to the approved incident command arrangements.

1	**Clinical judgement**	The clinical lead identifies patient risks, minimum conditions and safe alternatives.
2	**Technical judgement**	The competent engineer, biomedical team, laboratory or IPC lead assesses the relevant support system.
3	**Authorised decision**	The designated officer approves service reduction, relocation or reopening within their actual authority.
4	**Record and escalate**	Record reasons, affected patients, safeguards, time and next review. Escalate decisions beyond delegated power.

An emergency plan should identify the responsible officer and backup. It should not depend on one person answering a phone.

WORKING METHOD | Illustrative material is identified in the text.

Verify what backup power can actually support

A generator that starts is not proof that every essential service can operate.

Management checks

- Ask engineering for the essential-load list, working transfer arrangements and evidence of tests under appropriate load.
- Check fuel usability, delivery arrangements, operator cover, fault reporting and maintenance records.
- Identify devices that need uninterrupted power while a generator starts or supply transfers.

During a failure

- Clinical teams protect dependent patients using approved procedures and ready equipment.
- Engineering confirms safe supply and what can be connected; untrained staff must not improvise electrical connections.
- Use verified endurance estimates to arrange supplies, reduce demand safely or transfer before reserves fail.

Record the test result, not only the test date. Retain generator logs and applicable inspection evidence.

Sources: **C1**:standard 21, indicators 118-121

Treat oxygen continuity as a clinical dependency

Medical gas systems require trained operators, appropriate equipment and competent technical assurance.

Before disruption

- Confirm primary and backup sources, usable contents, alarms and responsible staff on every shift.
- Ask the technical and clinical leads to check capacity against actual and credible surge demand.
- Confirm lawful suppliers, refill lead times and safe transport and storage arrangements.

When supply is threatened

- Activate the approved escalation process; clinical teams assess and protect dependent patients.
- Only trained, authorised personnel operate the system or approved changeover arrangements.
- Do not reduce prescribed treatment merely to improve a stock estimate. Obtain urgent clinical and technical decisions.

A tank reading is not enough: reliability also depends on the delivery system, demand, power and trained support.

Sources: **C1**:medical gases and support equipment

Match water quality to the intended use

Drinking water, sterile processing and dialysis do not have identical technical requirements.

Keep a verified picture

- Identify source, usable storage, pumps, treatment and the services affected by supply loss.
- Check the contingency supply with engineering, IPC and the users of the water.
- Include toilets, hand hygiene, cleaning, food services, laundry and sewage removal.

Protect the patient pathway

- A delivery of water does not prove it is suitable for every clinical process.
- If water or sewage safety is uncertain, obtain specialist assessment and restrict affected work through the approved route.
- After contamination or repairs, obtain the appropriate checks before restoring the affected service.

Plan jointly for water quantity, quality, power and waste removal; a failure in one can disable the others.

Sources: **C1**:standard 21

Include failures that may close a clinical area

Working method: each service lead defines the response with the relevant technical specialist.

Support function	Continuity question
Ventilation and cooling	Can the room safely support its intended procedure, infection precautions and equipment operating limits?
Sterile processing	Is a validated supply of appropriate sterile items available, including transport and traceability?
Waste and sewage	Can hazardous waste and effluent be managed safely without blocking clinical work or contaminating the site?
Food and laundry	Can suitable meals, clean linen and infection-control arrangements continue for patients and staff?

HVAC means heating, ventilation and air conditioning. Reopening requires the relevant checks, not just a room-temperature reading.

Sources: **C1**:infrastructure and environmental services

Use stock that is actually available

Working method: estimate usable quantity before dividing by a consumption rate.

01 Count

Confirm stock on site and accessible now, using a dated physical check.

02 Suitability

Exclude expired, damaged, contaminated or incompatible items.

03 Restrictions

Identify quarantined or allocated stock that cannot be freely used.

04 Demand

Use the expected rate for this incident, with the units clearly stated.

05 Delivery

Check supplier confirmation, route, lead time and unloading arrangements.

06 Trigger

Set the action point early enough for a reliable alternative to take effect.

No single reserve period suits every hospital or hazard. Follow applicable directions and justify the local plan.

WORKING METHOD | Illustrative material is identified in the text.

Fuel cover changes when demand changes

Invented example only. Engineering confirms quantities and consumption under the actual load.

Available fuel	2,400 litres measured on site; 200 litres are unusable or unavailable. Usable quantity = 2,200 litres.
At current demand	Consumption = 100 litres/hour. Estimated cover = 2,200 / 100 = 22 hours.
At higher demand	Consumption rises to 125 litres/hour. Estimated cover = 2,200 / 125 = 17.6 hours.
Delivery uncertainty	A supplier quotes 18 hours. At higher demand, expected cover is 0.4 hours shorter than the quoted lead time.
Decision	Escalate now for a reliable alternative, earlier delivery or authorised load management. Verify the consumption rate again.

A calculation predicts stock endurance; it does not prove generator reliability or guarantee a delivery.

TEACHING CASE | Illustrative material is identified in the text.

Set the action point before the last unit

Invented example: usable supply is 900 units; demand is 150 units/day.

Estimated cover	900 / 150 = 6 days. Use the same item, unit and consumption definition throughout.
Local planning assumption	Resupply is expected in 3 days. The team adds a 1-day allowance for uncertainty in this example.
Action level	(3 + 1) x 150 = 600 units. This is a proposed local trigger requiring approval, not a statutory minimum.
If demand increases	At 225 units/day, 900 units cover 4 days; the same 4-day planning window requires 900 units.
Practical meaning	Under the higher-demand scenario, action is required now. Recheck stock, demand and delivery rather than relying on the earlier trigger.

Track demand changes and confirmed supplies. Do not count an unconfirmed purchase order as stock on the shelf.

TEACHING CASE | Illustrative material is identified in the text.

Count covered roles, not only staff names

Invented planning example. The staffing level is assumed for arithmetic; it is not a recommended clinical ratio.

Agreed requirement	Clinical leads have specified 8 suitably skilled staff present for each 8-hour shift, with no vacancies.
Daily cover	3 shifts x 8 staff = 24 staff-shifts, or 192 staff-hours, each day.
Known availability	The verified roster supplies 20 eligible staff-shifts. The gap is 4 staff-shifts, or 32 staff-hours.
What still needs checking	Correct skills, breaks, leave, travel, supervision and rest. One person cannot be counted on overlapping duties.
Management response	Arrange authorised cover or adjust the service safely. A larger headcount does not fix a missing specialist role.

Hours are a planning measure. Clinical leads must still confirm that each shift has a safe skill mix.

TEACHING CASE | Illustrative material is identified in the text.

Protect the team across successive shifts

A response that exhausts its first team may fail before the service is restored.

Practical support

- Confirm relief staff, food, water, rest space, safe travel and staff contact arrangements.
- Use competent staff within authorised roles; check credentials and supervision for incoming assistance.
- Provide confidential support for distress and routes to report illness, exposure or fatigue.

Reliable handover

- Name the incoming and outgoing lead, with the time responsibility changes.
- Hand over patients at risk, unresolved faults, remaining resources and promised assistance.
- Confirm the next decision time and who must be called if conditions worsen.

The roster should show who is available and fit for duty, not simply who has been asked to remain on site.

Sources: **C3**:human resources

Confirm assistance before relying on it

Working method: an agreement is useful only if people and resources can be reached during the incident.

01 Receiving service

Confirm the required capability, current capacity and accepting clinical contact.

02 Transport

Match vehicle, escort, equipment and route to the patient and actual conditions.

03 Patient review

Clinical teams decide fitness for transfer and required stabilisation and monitoring.

04 Handover

Send identity, clinical information, medicines and outstanding results securely.

05 Authority

Confirm approvals, duties, costs and supply records.

06 Arrival

Record departure, receiving acknowledgment and action if the transfer is delayed.

Do not send a patient on the assumption that a nearby hospital is unaffected or has an available bed.

WORKING METHOD | Illustrative material is identified in the text.

Continuity includes safe product handling

Use the detailed pharmacy and blood-service controls in Module 10 alongside the emergency plan.

Medicines and supplies

- Pharmacy checks critical items, usable stock, cold-chain status and approved alternatives.
- Clinicians authorise therapeutic substitutions; availability alone does not establish clinical equivalence.
- Keep receipt, issue, temperature and controlled-drug records during manual working.

Blood services

- The blood-service lead confirms suitable components, testing, compatibility and traceability.
- Coordinate lawful supply arrangements and transport conditions with authorised services.
- If temperature control fails, hold affected products for specialist disposition rather than assuming they remain usable.

A disruption does not remove the need for patient identification, product checks or documented clinical decisions.

WORKING METHOD | Illustrative material is identified in the text.

Control spread while preserving essential care

The IPC team must adapt precautions and patient placement to the suspected organism and route of transmission.

Protect the clinical pathway

- Arrange early recognition, assessment and appropriate placement of patients with suspected infection.
- Use standard precautions and the additional precautions required by the risk.
- IPC specialists decide when separation or cohorting is appropriate; a shared symptom alone is not a safe cohort rule.

Support safe working

- Provide appropriate protective equipment, training, cleaning and waste arrangements.
- Plan testing, specimen transport and staff exposure management through the designated teams.
- Keep urgent unrelated care accessible; monitor deferred treatment and workforce loss.

IPC = Infection Prevention and Control. This is a management framework, not a disease-specific treatment protocol.

Sources: **C5**:hospital IPC and patient placement

Escalate a suspected public health event promptly

IDSR links disease detection, information, laboratory support and response across responsible authorities.

1	**Recognise the signal**	Clinical, laboratory and IPC staff identify unusual cases, clusters or staff illness under the relevant definition.
2	**Use the current route**	The designated focal person checks the applicable provincial reporting instruction, recipient and urgency.
3	**Protect and investigate**	Start indicated protective measures; coordinate samples and investigation with the appropriate public health team.
4	**Keep a usable record**	Maintain secure case information, actions, reporting receipts and updates as the event is clarified.

Do not wait for a routine monthly report. A national roadmap is not itself a complete hospital notification protocol.

Sources: **C6**:objectives 2, 3 and 8

Do not turn an exposure into a larger incident

Chemical, biological and radiological events require hazard-specific expertise and coordinated response.

Administration must arrange

- An approved route to trained responders, IPC, laboratory biosafety and radiation protection expertise as applicable.
- Control of access and safe patient routing so that other clinical areas are not exposed.
- Clear communication with emergency services and the receiving clinical team about the suspected hazard.

Keep technical work with specialists

- Only trained teams using the appropriate equipment should handle contaminated material or perform decontamination.
- Laboratory specimens need risk assessment, authorised handling and suitable containment.
- Clinical teams provide urgent care using the approved hazard-specific pathway; staff should not improvise chemical neutralisation.

Biosafety reduces accidental exposure. Biosecurity protects biological materials and information from unauthorised access or misuse.

Sources: **C9**:risk-based biosafety

Prepare for the way the hazard affects care

Use current Punjab PDMA alerts and the applicable provincial, district and departmental plans.

Hazard	Operational checks
Heavy rain or flood	Access roads, delivery routes, staff travel, drainage, water safety and vulnerability of stores or electrical rooms.
Extreme heat	Clinical surge, safe indoor conditions, cooling reliability, staff welfare, water demand and temperature-sensitive products.
Earthquake	Injury surge, access, utilities, equipment stability and competent assessment of structural and non-structural damage.
Wider disruption	More than one hospital or supplier may fail together. Test alternatives outside the same vulnerable location or supply route.

Do not enter or reopen a damaged area based on appearance alone. Obtain competent safety assessment.

Sources: **C4**:climate resilience | **C7**:current provincial plan listing

Maintain a complete patient record during downtime

Use Module 15 for detailed access, backup, recovery and information-governance controls.

While systems are unavailable

- Use approved paper forms and identifiers for orders, medicines, results and patient movement.
- Keep a reliable route for critical results, with acknowledgment by the responsible clinical team.
- Protect records and report suspected cyber incidents through the approved IT response route.

When systems return

- IT confirms the technical recovery; clinical users check the workflow before normal use resumes.
- Reconcile paper and electronic records, outstanding orders, medication entries and unacknowledged results.
- Prevent duplicate treatment or lost requests. Keep the original downtime records under the retention arrangements.

A working login does not demonstrate a complete or clinically safe recovery.

WORKING METHOD | Illustrative material is identified in the text.

Make service changes understandable

Working method: prepare a message that patients, referrers and staff can act on.

01 Current position

Which service or location is affected, from what time, and what is still operating?

02 Patient action

Where should patients go, whom should they call and how is urgent need assessed?

03 Alternative route

Explain the agreed referral or replacement service.

04 Known limits

State confirmed facts and unresolved issues; do not invent a restoration time.

05 Approval

Use the named spokesperson and approved channels.

06 Next update

Give a realistic update time and a way to correct information that changes.

Use accessible language and protect identifiable patient information. Confirm that ambulance and referring teams received the change.

WORKING METHOD | Illustrative material is identified in the text.

Use one dated service-status report

Suggested fields for a short incident meeting. The frequency should match how rapidly conditions are changing.

Item	Report the decision-relevant facts
Patients and services	Patients at immediate risk; services open, reduced or suspended; safe capacity and referral needs.
Critical resources	Verified stock, consumption, estimated cover, delivery confidence and utility faults.
Workforce and safety	Covered roles, next-shift gaps, staff welfare, access restrictions and unresolved hazards.
Decisions required	Action, responsible officer, approval needed, deadline and next review time.

Label estimates and their checking time. A reassuring colour on a dashboard does not replace a quantified shortage.

WORKING METHOD | Illustrative material is identified in the text.

Escalate before the backup is exhausted

Invented example: a specialised unit has 10 hours of verified supply; a reliable replacement needs 8 hours.

What is known	The difference is only 2 hours. Demand, travel or installation delay could remove that margin.
What to ask	Is the estimate current? Has the supplier confirmed? Is the alternative clinically and technically suitable?
Action now	Inform the authorised lead; secure an earlier or second option and review patient-specific transfer needs.
Do not assume	Do not wait until the last hour or describe all 10 hours as spare decision time.
Record the trigger	State the point at which further admissions, new procedures or transfer decisions need review by the relevant authority.

A safe trigger leaves time to act. The competent team must select and approve the actual trigger for the service.

TEACHING CASE | Illustrative material is identified in the text.

Reopen through clear evidence-based gates

Working method: reopening should follow the risks of the affected service.

1	**Make the area safe**	Engineering and relevant safety specialists verify the building, utilities, equipment and access conditions.
2	**Restore clinical readiness**	Clinical, nursing, pharmacy, IPC and support leads confirm the people and processes needed for the proposed activity.
3	**Authorise a limited restart**	The responsible officer records scope, evidence, restrictions and stop criteria; begin only at supported capacity.
4	**Review and expand**	Check performance, incidents and unresolved faults. Expand or return to routine operation only after the next review.

Define the required sign-offs in the local plan. “Power restored” and “service safe to reopen” are different findings.

Sources: **C1**:standards 21-22

Clear deferred care without creating new harm

Invented example: 240 postponed cases remain after clinical review; routine demand already uses normal capacity.

Additional capacity	The service can safely provide 30 extra completed cases per week above normal work.
Simple estimate	240 / 30 = 8 weeks, assuming no additional backlog and no loss of capacity.
If the backlog still grows	10 further cases per week join it. Net reduction = 30 - 10 = 20 cases/week; 240 / 20 = 12 weeks.
If capacity is insufficient	When additions equal or exceed extra completions, the backlog does not fall under these assumptions.
Clinical control	Reassess priority, communicate with patients, track deterioration and provide an urgent review route.

Backlog clearance is not first-come, first-served by default. Apply approved clinical priority and fair access criteria.

TEACHING CASE | Illustrative material is identified in the text.

Reconcile what happened during the incident

Use the applicable financial, procurement, personnel and record rules taught in earlier modules.

Preserve the evidence

- Keep decision logs, approvals, supplier commitments, receipt and issue records, and staff deployments.
- Record actual costs and distinguish purchased, borrowed and donated resources.
- Preserve damaged-item evidence and incident records required for audit, claims or investigation.

Close outstanding commitments

- Reconcile emergency paper records with the accounts, stock system and asset register.
- Check delivered quantities, quality and authorised payments; return or account for borrowed items.
- Explain gaps honestly and use the lawful correction process. Do not backdate approval or recreate false evidence.

An incident record supports accountability. It does not retrospectively create a power or approval that did not exist.

WORKING METHOD | Illustrative material is identified in the text.

Test a specific claim in the plan

Working method: choose a safe exercise with permission, observers and an immediate stop route.

Claim to test	Evidence that would support it
Backup staff can arrive	Successful contact, realistic travel time, skills checked and a completed handover.
A partner can accept care	Named receiving lead confirms capability and the referral process works in the exercise.
Supplies can arrive	Supplier confirms actual stock, route and lead time; required handling and receipt checks are demonstrated.
Service can recover	The team completes the relevant safety checks, record reconciliation and authorised restart decision.

Do not disrupt life-sustaining care merely to make a drill realistic. Use simulation and controlled technical tests.

WORKING METHOD | Illustrative material is identified in the text.

Turn a review into a completed correction

An after-action review examines the response so that future performance can improve.

1	**Reconstruct events**	Use the timeline and accounts from clinical, support and external teams to establish what happened.
2	**Explain the difference**	Compare intended and actual actions; examine why arrangements worked or failed.
3	**Agree improvements**	Select actions with a responsible officer, resources, due date and a measurable completion test.
4	**Verify the result**	Check evidence, repeat the failed part of the exercise and update the controlled plan and staff briefing.

A learning review does not replace a required disciplinary, legal, clinical or safety investigation.

Sources: **C8**:review and follow-up

Three decisions for the institutional head

Write your answer and the reason before turning to the next page.

1 | Supply cover

Usable stock is 1,200 units. Consumption is 100 units/hour. Reliable resupply needs 15 hours.

What does the estimate show, and when should action begin?

2 | Reopening

Electricity has returned after a flood. The manager proposes reopening because the lights work.

What evidence is still required before the affected service restarts?

3 | Deferred care

There are 180 delayed cases. The service completes 25 extra cases weekly, but 10 new delayed cases join each week.

How long might clearance take under these assumptions?

These are invented planning cases. State the clinical and technical assumptions that must be checked.

Answers and reasons

Use the evidence, the calculation and the cited source.

1 | Escalate the three-hour gap now

1,200 / 100 = 12 hours of estimated cover. Resupply takes 15 hours, leaving a 3-hour shortfall before allowing for uncertainty. Activate a reliable alternative or safe service adjustment through the authorised clinical and operational leads.

2 | Obtain service-specific assurance

Require competent checks of the affected building, electrical and water systems, equipment and infection risks. Confirm staff, supplies and clinical processes. The authorised officer records the permitted scope and review conditions before restart.

3 | Twelve weeks, if the assumptions hold

Net clearance is 25 - 10 = 15 cases per week. 180 / 15 = 12 weeks. This assumes sustained extra capacity, unchanged incoming backlog and no other losses. Reassess clinical priority and monitor patients whose care remains delayed.

Recalculate whenever demand, usable resources, lead time or actual capacity changes.

Prepare one usable continuity plan

Use a non-confidential real case or the invented examples in this lecture.

1 | Service brief

Select one service. Define its risks, safe conditions, dependencies and decision authority.

2 | Resource estimate

Check one critical resource. Show usable stock, demand, uncertainty, reliable resupply and the action trigger.

3 | Test and recovery

Set a safe exercise, named observers, restart checks and a closure test for identified gaps.

Review with the clinical lead, nursing, engineering or IT, IPC, finance and the authorised institutional lead as relevant.

The test is whether the team can use the plan during a disruption, including out of hours.

WORKING METHOD | Illustrative material is identified in the text.

Connect the sixteen modules to one decision

Choose a real service problem without disclosing patient, personnel or restricted institutional information.

Part of the decision	Evidence to bring together
Authority and resources	Governing instrument, decision route, delegated power, staff responsibilities and lawful funding.
Safe delivery	Clinical standards, medicines, equipment, buildings, training, information and referral arrangements.
Implementation	Options, costs, procurement route, risks, owners, deadlines and patient communication.
Assurance and resilience	Measures of success, accurate records, review process, emergency alternatives and verified corrective action.

Present a short decision paper and defend its assumptions. Course completion is demonstrated by sound decisions in practice.

WORKING METHOD | Illustrative material is identified in the text.

Six questions to keep at hand

At each review, request a checked answer and the next required decision.

01 Patient risk

Who needs protection now, and what care is at risk of interruption?

02 Safe capacity

Which services can operate with all necessary support in place?

03 Time remaining

How long will usable resources last under the current demand?

04 Reliable alternative

Which assistance or referral has actually been confirmed?

05 Next decision

Who has authority to act, and by what time must the decision be made?

06 Recovery evidence

What must be checked before the service resumes, and who signs off?

Keep the plan current, practise its difficult parts and verify that corrective actions work.

WORKING METHOD | Illustrative material is identified in the text.

Sources and continued use | 1

Select a source title or its official-source link to open the document.

C1

PHC: MSDS for Category I Hospitals, revised edition 2024

FMS standards 21-23 cover infrastructure, equipment and emergency readiness. Use the edition and category applicable to the hospital; retain its assessment evidence.

Punjab Healthcare Commission | **Official source**

C2

Health service continuity planning for public health emergencies (2021)

Interim handbook for health facilities. International planning guidance, not a Punjab statutory rule. The working sheets and numerical examples in this lecture are original teaching tools.

World Health Organization | **Official source**

C3

Hospital emergency response checklist (2011)

All-hazards planning guidance: essential services, human resources, logistics and recovery. Adapt to the hospital and current official directions; this is not a prescribed Punjab staffing ratio.

WHO Regional Office for Europe | **Official source**

Educational material by Dr Qurban Hussain Khan. Source editions are stated; verify later amendments and applicable institutional orders before live use.

Sources and continued use | 2

Select a source title or its official-source link to open the document.

C4

Climate-resilient and environmentally sustainable facilities (2020)

Guidance on workforce, water and sanitation, energy, infrastructure and products. Used for planning questions; technical acceptance requires competent local assessment.

World Health Organization | **Official source**

C5

National Guidelines: Infection Prevention and Control (2020)

Hospital IPC programme, standard and transmission-based precautions, patient placement and staff protection. Apply current disease-specific guidance alongside the national framework.

National Institute of Health, Pakistan | **Official source**

C6

Pakistan IDSR Roadmap 2024-2028

Integrated Disease Surveillance and Response: national and subnational coordination, detection, laboratories and response. The roadmap does not replace current reporting instructions.

National Institutes of Health, Pakistan | **Official source** | **Current surveillance bulletins**

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Sources and continued use | 3

Select a source title or its official-source link to open the document.

C7

Provincial Monsoon Contingency Plan: official listing

Punjab PDMA lists the 2026 provincial plan. Obtain the applicable plan, current alerts and district or departmental directions; a plan title alone does not establish a hospital-specific instruction.

Provincial Disaster Management Authority, Punjab | **Official source**

C8

Guidance for after action review (2019)

WHO/WHE/CPI/2019.4. Structured review to understand a response and improve future performance. A learning review does not replace an investigation required by law or competent authority.

World Health Organization | **Official source**

C9

Laboratory biosafety manual, fourth edition (2020)

Risk-based laboratory biosafety. Specialist personnel assess containment, specimen handling and exposure controls; this lecture is not a technical spill or decontamination protocol.

World Health Organization | **Official source**

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