وزارة الصحة
Ministry of Health

Outbreak Notification process

General Directorate of Infection Prevention and Control (GDIPC)
Outbreak and RRT Team
2022

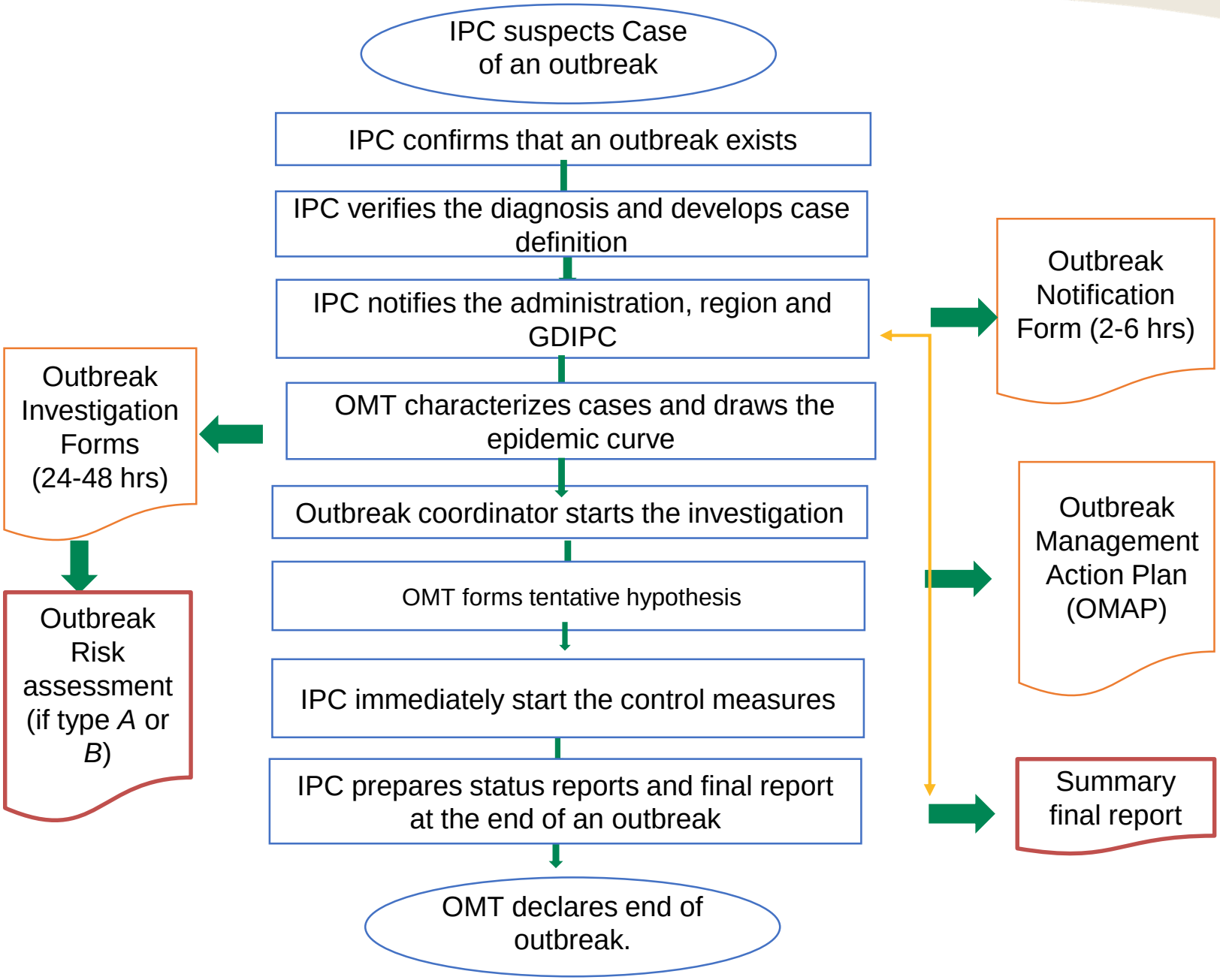
Your notification of outbreak

Will received to the operation unit in outbreak program

What is the meaning of an operational unit?

- It is the unit responsible for following up the outbreaks from the arrival of notifications to investigation and classification of the outbreak according to guidelines.

Outbreak Management process (Flow chart)



HAIs Outbreak Notification Form

://docs.google.com/forms/d/1Nn9qlp45_1bNjNeTtvp5j73_SQWcG8UuH2lP-Vmjd2g/edit

COVID-19 Outbreak Notification form

https://docs.google.com/forms/d/11GsW1s1OfCjX1c5W6QyBmM7VEjo5dddvlAV0iMoPebg/edit

		Pathogen	No of new confirmed cases within 3-days	No of deceased with confirmed diagnosis within 3-days	Responsibility
C	1	Acinetobacter	2 - 4 Cases	1 - 2 Deceased	Hospital & Cluster
	2	Klebsiella Pneumonia (CRKP)			
	3	MRSA / VRE / CRE			
	4	Pseudomonas			
	5	Other MDROs			
	6	Clostridium Difficile			
	7	Food - borne Organisms			
	8	Water - borne Organisms			
	9	Clostridium Botulinum			
	10	Legionella	1 - 2 Cases	1 Deceased	
	11	Fungal / Candida albicans	2 - 4 Cases	1-2 Deceased	
	12	Other Candida Species			
	13	Candida Auris	1 - 2 Cases	1 Deceased	
	14	Aspergillus Species			
	15	Hepatitis A virus (HAV)	2 - 4 Cases	1 - 2 Deceased	
	16	Hepatitis B virus (HBV)			
	17	Hepatitis C virus (HCV)	1 - 2 Cases	1 Deceased	
	18	Measles	2 - 4 Cases	1 - 2 Deceased	
	19	Chickenpox			
	20	Influenza or Influenza Like Illness (ILI)	3 - 4 Cases	1 - 2 Deceased	
	21	COVID- 19 Outbreak	2 - 5 Cases	1 - 2 Deceased	
	22	MERS-CoV	1 - 2 Cases	1 Deceased	

Outbreak Classification Matrix- Class C

❖ **Intervention:**

✓ Full- complete notification form within (2-6 hours).

✓ Complete OMAP form via the first 24 hours.

✓ Full the outbreak investigation form (outbreak line list, contact tracing for patients and HCWs) via 24-48 hours

✓ Prepare corrective plan to manage the outbreak via 24-48 hours

✓ Follow up the corrective Plan with RHD

✓ Note: GDIPC will be involved when it is necessary.

❖ **Responsibility**

✓ The centers and RHD

		Pathogen	No of new confirmed cases within 3-days	No of deceased with confirmed diagnosis within 3-days	Responsibility
B	1	Acinetobacter	5 - 7 Cases	3 - 4 Deceased	✓ Regional responsibility ✓ Hospital & Cluster
	2	Klebsiella Pneumonia (CRKP)			
	3	MRSA / VRE / CRE			
	4	Pseudomonas			
	5	Other MDROs			
	6	Clostridium Difficile			
	7	Food - borne Organisms			
	8	Water - borne Organisms			
	9	Clostridium Botulinum			
	10	Legionella	3 - 4 Cases	2 Deceased	
	11	Fungal / Candida albicans	5 – 7 Cases	3-4 Deceased	
	12	Other Candida Species			
	13	Candida Auris	3 - 4 Cases	2 Deceased	
	14	Aspergillus Species			
	15	Hepatitis A virus (HAV)	5 - 7 Cases	3 - 4 Deceased	
	16	Hepatitis B virus (HBV)			
	17	Hepatitis C virus (HCV)	3 - 4 Cases	2 Deceased	
	18	Measles	5 - 7 Cases	3- 4 Deceased	
	19	Chickenpox			
	20	Influenza or Influenza Like Illness (ILI)	5 - 7 Cases	3- 4 Deceased	
	21	COVID- 19 Outbreak	6-10 Cases	3-5 deceased	
	22	MERS-CoV	3-5 Cases	2 Deceased	

Outbreak Classification Matrix- Class B

❖ **Intervention:**

✓ Complete risk assessment form via the first 48 hours based on RHD coordinator site visit.

✓ Check the corrective plan to ensure covering the risk assessment notes (hospital with cluster and supervision and participating by RHD).

✓ Corrective plan has to be shared with GDIPC by RHD outbreak coordinator

✓ Note: GDIPC will be involved when it is necessary.

❖ **Responsibility**

✓ The centers and RHD

		Pathogen	No of new confirmed cases within 3-days	No of deceased with confirmed diagnosis within 3-days	Responsibility
A	1	Acinetobacter	8 Cases & Above	5 Deceased & Above	Regional responsibility GDIPC's responsibility, if needed GDIPC visit upon directive from high authority Hospital & Cluster
	2	Klebsiella Pneumonia (CRKP)			
	3	MRSA / VRE / CRE			
	4	Pseudomonas			
	5	Other MDROs			
	6	Clostridium Difficile			
	7	Food - borne Organisms			
	8	Water - borne Organisms			
	9	Clostridium Botulinum			
	10	Legionella	8 Cases & Above	5 Deceased & Above	
	11	Fungal / Candida albicans	8 Cases & Above	5 Deceased & Above	
	12	Other Candida Species			
	13	Candida Auris	5 Cases& Above	2 Deceased	
	14	Aspergillus Species			
	15	Hepatitis A virus (HAV)	8 Cases & Above	5 Deceased & Above	
	16	Hepatitis B virus (HBV)			
	17	Hepatitis C virus (HCV)	5 Cases & Above	3 Deceased & Above	
	18	Measles	8 Cases & Above	5 Deceased & Above	
	19	Chickenpox			
	20	Influenza or Influenza Like Illness (ILI)	8 Cases & Above	5 Deceased & Above	
	21	Not Known or New - Emerging Organism	Only One Case	Zero Deceased	
	22	COVID- 19 Outbreak	≥ 11 Cases	≥ 6 Deceased	
	23	MERS-CoV	≥ 6 Cases	3 Deceased & Above	

Outbreak Classification Matrix- Class A

Intervention:

- Follow up the corrective plan with Regional Health directorate (RHD).
- Assess the risk assessment done by RHD.
- Maintain close communication with RHD.
- GDIPC will involve when above three points have not achieved their outcome.
- Complete GDIPC risk assessment form based on GDIPC site visit.
- Prepare the corrective plan to ensure covering the GDIPC risk assessment notes and shared with (RHD, Cluster and Hospitals).

Responsibility

✓ Regional responsibility.

✓ GDIPC's responsibility, if needed

***N.B.:** Outbreak HAIs risk assessment will be activated by RHD outbreak' coordinators and evaluated by GDIPC – MOH outbreak team

Outbreak Management Team (OMT)

- Generally, the members of an OMT are as follows:

✓ Infection Control coordinator.
✓ Epidemiologist.
✓ Clinical Microbiologist.
✓ Infectious disease consultant.
✓ Public health (Environmental health).
✓ Supportive services department.
✓ Supplies department.
✓ Pharmacy Administration
✓ Medical or Hospital Directorate
✓ Head of main concerned department

Hospital OMT roles:

1. Determine the extent of the outbreak through active-case finding.
2. Investigate the source and cause of the outbreak.
3. Make sure laboratory tests are undertaken appropriately and promptly.
4. Generate a hypothesis on the occurrence of the outbreak whenever possible.
5. Define and implement control measures.
6. Implement a screening policy during the outbreak for patients and staff.
7. Asses the requirement for additional supplies and staff in case of a large outbreak.
8. Coordinate with the hospital managers for assisting the OMT.
9. Keep the HCWs in the hospital aware of the outbreak,

   regularly update them on its situation, and provide training

   and clear recommendations.
10. Declare the end of the outbreak after the regional OMT and

    GDIPC's consultation and approval.
11. Make sure prompt, consistent, accurate and adequate information is available.
12. Maintain the confidentiality of the outbreak data.

General Directorate of Infection Prevention and Control (GDIPC) Outbreak Management Department

Response and Intervention Division

Hospital Outbreak Management Action Plan

Region: _____

Hospital:

Action	Recommendation	Responsibility	TimeFrame	Status			
				Done	Ongoing	Not Done	Not Applicable
1. **NOTIFY** GDIPC / Outbreak Management Department and the Regional Coordinator	Use the designated Google Form for the Outbreak Notification	IPC Head / Hospital Outbreak Coordinator	**IMMEDIATE**				
2. **IMPLEMENT** IPC Measures **IMMEDIATELY**	- Review MOH Guideline and IPC Policies	IPC Staff and the Unit Nurses	**IMMEDIATE**				
3. **ACTIVATE** the Outbreak Management Team (OMT)	-Review the Outbreak Management Team roles - Documentation of Minutes Meeting - OMT regular meetings until the end of the outbreak	IPC Head	**IMMEDIATE**				

4. INFORM the Infection Control Committee	- Inform during the coming ICC meeting and ask for an urgent meeting if necessary -	IPC Head	-On the specified regular meeting -On need and demand	
5. DETERMINE the Criteria of MDROs	-Review the lab results -Review MOH/CDC guideline -Consult the ID doctor	IPC Staff / ID Consultant		
6. SCREEN the Newly – Admitted Patients in the critical areas	- Contacts Screening - MRSA - CRE / Gram Negative Bacteria - Other organisms when Indicated	IPC Staff / Unit Head Nurse		
7.REVIEW The Previous Culture Positive Results	- Monthly Microbiological Results -Culture log book documents	Hospital IPC Staff/ Regional Outbreak Coordinator		
8. ISOLATE the Patients	-Contact isolation in separate rooms or Cohort Isolation - Place a precaution sign at the entrance of the infected patient's rooms with approved MOH	Unit Head Nurse and IPC Staff	**IMMEDIATE**	
9. DECLONIZE the Patients	-According to the type of microorganisms -Review MOH/CDC guideline -Review the materials required (Chlorohexidine, Disposable Oral Hygiene Kit, Insertion Line Kits)	Nursing Staff / IPC Staff		

10. PROMOTE Patients Hygiene	Daily or According to the known IPC Policies	Nursing Staff / IPC Staff	Daily or according to the IPC Policies	
11. STICK to Aseptic Technique Practices and Procedures	-Review the IPC policies of lines insertion and blood cultures extraction / catheters insertion / ventilators -Audit the Respiratory Therapist's regarding IPC practices.	IPC staff / Treating Physician / Nursing Staff		
12. NOTIFY the Receiving Department	- Fill the Transfer form - Check the cases' files to know if they were previously transferred from another department or hospital - Cases' status (infected, colonized) - Required precaution type (contact precaution) in addition to standard precaution	IPC Staff and Head Nurse	Whenever transferring the patient	

13. LIMIT the Overcrowding of ICU	-Limit the admission when needed -Long-stay patients may be transferred to long term care hospital	IPC Staff / Unit Head / Outbreak Regional Coordinator		
14. TRACE **Contacts of the Patients**	- Prepare the Contact Lists (Patients /Healthcare workers)	IPC Staff		
15. CALCULATE **Nurse: Patient Ratio**	-1: 1 or 1:2 nursing staff: patient ratio in critical area	Head Nurse / Medical Director/ IPC Staff		
16. ASSIGN Infection Control Personnel per Shifts	-Audit and follow up the infection control implementations in the unit during every shift until the outbreak closed	IPC Staff / Medical Director		

17. AVAIL Infection Prevention and Control Supplies (PPEs)	-Check proper quantities and quality - All sizes of (gloves -gowns – mask) should be provided -follow up the practice of donning and doffing of PPES	Head Nurse / IPC Staff /Medical Supplies Department Head		
18. PROVIDE Environmental Disinfectants Products (quantities and quality)	-Approved MOH disinfectants -Apply Proper contact time for disinfectant -Activate the roles and responsibilities of the environmental cleaning	IPC Staff/ Unit Head Nurse / Housekeeping supervisor		
19. PERFORM routine and terminal cleaning when Indicated	-According to the IPC's cleaning and disinfection policies -Inform the housekeeping supervisor to terminally clean the unit -Use check list for routine and terminal cleaning	IPC Staff/ Unit Head Nurse /Housekeeping Supervisor /ER Supervisor	-According to the Cleaning Schedule of the Room. -After the Discharge of the patients.	

21. REVISE the waste management	-Review updated policies and implement waste management policy - Continuously train the housekeepers staff	Head of Support Services Department/IPC Staff		
22. DISCARD disposable items	-Review Quantities and quality of disposable items (oral hygiene care and central line kit) and skin disinfectants available in the unit (suction tubes, Ambu bag, Swabs ...etc.)	IPC Staff/Unit Head Nurse/ Storage Department Head		
23. APPLY the fundamental engineering control principles	-Detect problems in machines / infrastructure / renovation / new building.	Engineering Department Head / IPC Staff		
24. CHECK infrastructure of the Unit	-Review the unit's design -Review MOH/GCC/CDC Guideline for spacing according to IPC criteria.	IPC Personnel / Engineering Department		
25. RESTRICT visitors and unauthorized personnel	-Implement visitor restriction policy on e.g.: relatives, trainees, medical students...etc.	IPC Staff / Security Department		

28. CHECK the medication preparation	-Check medication preparation area in the unit and Pharmacy	IPC Staff / Head of pharmacy		
29. CONSULT Public Officers/ Occupational Health Clinic or any relevant departments	-Vaccination -Restriction from work - Screening	Public Department / Occupational Health Clinic Officer		
30. REVIEW - the Hand Hygiene Compliance Rate for the previous 3 months -	-Monitor the adherence to best practice of hand hygiene according WHO Forms -Report to the High Authority regarding the non-compliant staff	IPC Staff		
31. REVIEW the Surveillance for the previous 3 months- -	-Review the infection rate (VAP CALBSI-CAUTI) -Check the proper bundles for implementation and documentation -Review insertion line and ventilators	IPC Staff		

32. REVIEW the Antibiotic Stewardship Program	- Review antibiotic policy according MOH Antimicrobial Guideline -Do not use antibiotics to treat colonized cases -Implement antibiotic restriction policy -Strict implementation of ASP	ID Consultant/ Treating Physician/ Pharmacist/ IPC Staff		
33. REVIEW the last ICA evaluation score	-Review the ICA evaluation score -Detect weak points	IPC Staff / Outbreak Regional Coordinator		
34. REVIEW Core Components	-Review the core component score -Detect weak points in the unit	IPC / Outbreak Regional coordinator		
35. SEND the Follow- up reports and the Final Report	-Outbreak management plan status update -Detailed and complete final report	Infection Preventionists / Outbreak Regional Coordinator		
36. Do Molecular Typing	-Arrange with Microbiology lab to save the patients specimen for molecular typing if available or send to reference lab	Infection Preventionists / laboratory Specialist		

Thank you