Organization
Knowledge
Performance
Management

V0.1

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Message from the chairman

It is vividly evident that the world witnessed the worst public health and economic crisis due to COVID-19 pandemic. This inevitably mobilized the international community to act seriously and swiftly. However, the mortalities and morbidities induced by healthcare-acquired infections (HAI) are equally fatal, but the international community did not act similarly. Consequently, we are continuously and chronically suffering from HAI.

The current intervention for HAI is merely based on passively-set standards and enforcing these standards via regulatory agencies such as the centre for disease control and prevention (CDC), joint commission international (JCI), ministries of health, and other regulatory agencies. To efficiently address HAI, we inevitably need to mobilize the international community because HAI traverses a multitude of epistemological dimensions, requiring multidisciplinary tacit knowledge, and mandates active international collaboration. Besides, we believe that we can efficiently traverse deeply into the root-causes and solution landscapes by automating the entire healthcare environmental services and infection control within healthcare institutions using the latest advancements in computational epistemology, computational infection control models, computational epidemiological models, artificial intelligence, machine learning, distributed ledger technology, collective intelligence, cognitive technologies, internet of things, ubiquitous technologies, intelligent micro-measurement frameworks, artificial life, evidence-based program implementation, patient-centric care, strategy anchored execution, and symbiotic healthcare ecosystem services. Consequently, we developed these open standards that were tailored from diverse international standards to promote the automation of healthcare environmental services and infection control processes and best practices.

The Healthcare Environmental Services Operational Map (HESOM) and other standards were developed to efficiently leverage multidisciplinary experts and practitioners to contribute towards the eradication of HAI-induced mortalities and morbidities. Using ReXcels research and innovation environment, we cultivate collective intelligence by bringing together these multidisciplinary experts to iteratively develop these standards and adaptively support the innovation of computational technology that automates the execution and enforcement of these standards. As such, we cordially invite you to use these documents and participate actively in the further development of these standards to significantly reduce HAI-induced mortalities, morbidities, and their enormous negative economic externalities.

Hamid Adem
Interim Chairman, and Chief R&D Officer

Change Control

Change Control

Version:	Date:	Changes:

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Purpose

1 Purpose

1. PURPOSE

The purpose of this document is to establish an Organization Knowledge Performance Management process for the organization's environmental Services department such that organization knowledge related performance is well tracked and monitored and reported.

This process is based on international well acclaimed standards like:

- *NHS- National Health Services Standard*
- *OSHA- Occupational Safety and Health Administration standard*
- *CDC- Centers for Disease Control and Prevention standard*
- *Lean six sigma- Quality Standard*
- *JCI- Journal of Clinical Investigation standard*
- *JCAHO- Joint Commission on Accreditation of Healthcare Organizations (JCAHO)*
- *EPA- US Environmental Protection Agency*
- *HCAHPS - Hospital Consumer Assessment of Healthcare Providers and Systems*
- *HIPA- Health Information Privacy Act standard.*

P.S: This process is a derivation from **ESM (Environmental Service Map),** *which is a holistic and a comprehensive model for Environmental Services Management.*

Structure of the Document

2.   STRUCTURE OF THE DOCUMENT

The Organization Knowledge Performance Management process document comprises the following chapters:

Chapter–3: _Scope_: This chapter describes the scope of the document and the Organization knowledge Performance Management.

Chapter–4: _General Assumptions_: This chapter describes the underlined assumptions made for both the document and Organization Knowledge Performance Management process.

Chapter–5: _Organization Knowledge Performance Management Framework_**:** This chapter exhibits the interaction of Organization Knowledge Performance Management process with other related processes.

Chapter–6: _Organization Knowledge Performance Management Process_**:** In this chapter Organization Knowledge Performance Management process and sub processes (if any) will be depicted and specified using rigorous BPMN and process specification templates.

Chapter–7: _References_**:** This chapter serves as a prime reference to Organization Knowledge Performance Management process and presents the details supporting it in tabular formats. The chapter describes relevant Business Rules, Risks, Quality Attributes, Data Quality Dimensions, Operation Policies, KPIs, CTQs, Abstract Time-scales and SLAs terms specific to Organization Knowledge Performance Management process.

Scope

3. SCOPE

This process is applicable to organizational knowledge management process of the environmental service department.

General Assumptions

4. GENERAL ASSUMPTIONS

Following are the general assumptions made for this process:

- There exists an automated capability to monitor the performance
- The roles defined in all processes within this document can be attached to the existing position
- Any activity related assumptions are explicitly identified in related Process Specification table in Chapter 6.

5 Organization Knowledge Performance Management

Organization Knowledge Performance Management Framework

5 Organization Knowledge Performance Management Framework

5.1 Organization Knowledge Performance Management Interactions

The following depiction shows the points of interaction of organization's environmental Services Organization Knowledge Performance Management process with other related processes. The arrows moving into Organization Knowledge Performance Management process signifies the inputs from the other processes to Organization Knowledge Performance Management Process, and the arrows moving out of the Organization Knowledge Performance Management process signify the inputs from Organization Knowledge Performance Management process to other related processes.

5 Organization Knowledge Performance Management Framework

5.2 Organization Knowledge Performance Management Process Sequence

The Organization Knowledge Performance Management process comprises of following high level sequence of activities:

1. **Monitor & control performance**
2. **Initiate Organization Knowledge Performance degradation Report**
3. **Track & Manage Organization Knowledge Performance degradation Report**

Organization's environmental Services department's Organization Knowledge Performance Management process follows sequential steps mentioned below (**Section 5.2.1-5.2.3**). **Section 6.1** Process Model sheds more light on the flow of this process.

5.2.1 Monitor & Analyze Materials performance

This process is responsible for collecting performance data for organization knowledge and evaluating against the relevant commitment:

- Relevant SLA
- Relevant KPIs
- Process Quality
- Records accuracy

This process highlights any related violations or breaches.

5.2.2 Initiate Organization Knowledge Performance degradation report

This process is responsible for creating Organizational knowledge degradation report. This process establishes an Organization Knowledge Performance degradation report which comprises of:

- Report id
- Organization Knowledge Performance issue
- Effected service / products
- Business impact
- Time and date of report

- Current status
- Closure time and date.

5.2.3 Track and Manage Organization Knowledge Performance degradation Report

This process ensures that:

- The restoration activities pertaining to Organization Knowledge Performance degradation are managed properly. This process is responsible to manage interactions with the Materials Manager on the resolution progress and update the performance degradation report on the current status.
- The Organization Knowledge Performance degradation report is closed once the problem has been resolved.

Organization Knowledge Performance Management Process

6.1 Organization Knowledge Performance Management - Process

Quality Manager

Periodic Event

Monitor & Analyze organizational Knowledge performance

Performance degradation report

Track & manage performance resolution

6 Organization Knowledge Performance Management Process
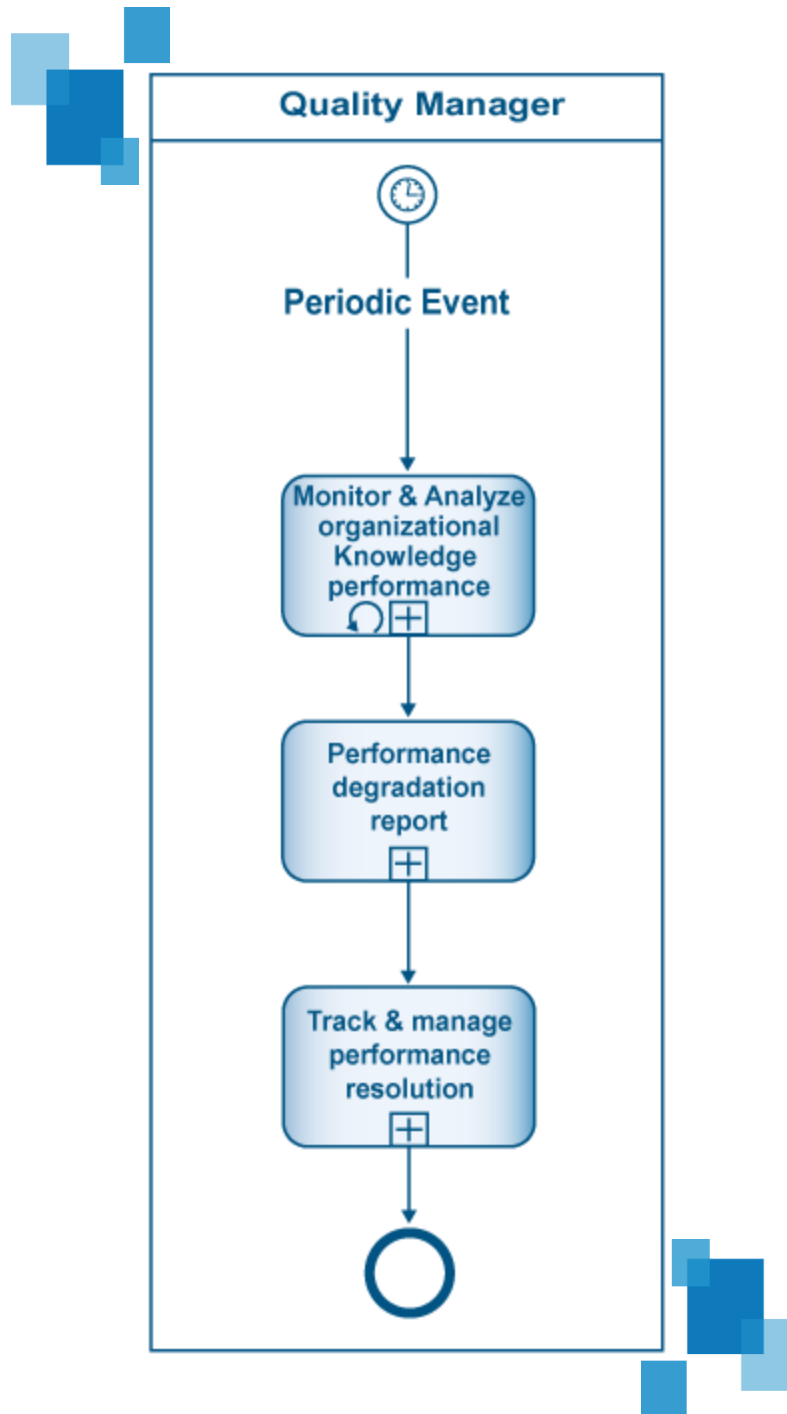
6.2 Organization Knowledge Performance Management - Specification

Specification	Description
Summary/Purpose	The purpose of this process is to establish Organization Knowledge Performance Management process.
Scope	This is a level 1 Process Specification.
Primary Reference	• Lean six sigma- Quality Standard
Related ESM Practices	Staffing Performance, Inventory performance, Organization Knowledge Management, Organizational Behavior Performance, Materials Performance.
Related Business Driver	Organization Knowledge Performance improvisation
Related Operational Policies	OP-001, OP-002 (Ref. 7.5)
Assumptions	There exists a capability at organization's environmental Services department to monitor the performance of organizational knowledge process.
Voice of Customer	Hygiene, High and Consistent Quality of standards, Free of Infections, Timely Services, High Coordinating, Remove Waste, Excellent Ergonomic, Safety, Appearance, Excellent Worker Attitude. (Ref 7.10)
Customer Satisfaction Measure	Customer satisfaction index
COI Correlation	None
Raw Materials	None
Equipment & Accessories	Automated System for Organization Knowledge Performance Management.

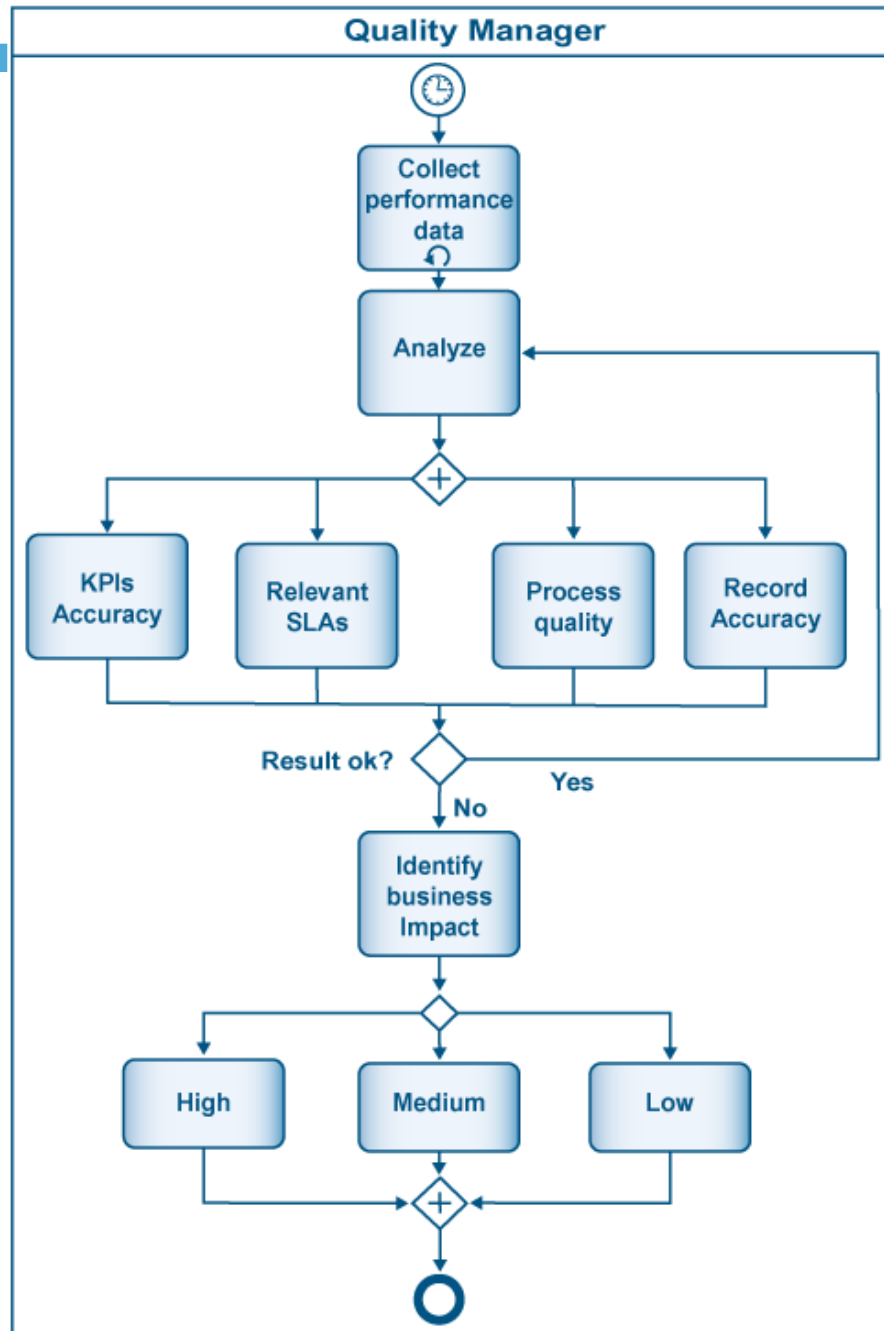# 6 Organization Knowledge Performance Management Process

MSD Management	Lifting/carrying, Disability, Force, Loaded motion, Physical ergonomics, Posture change, Excessive force, Scarceness, Noise, Concentration, Floor hazards, Clothing, Psychosocial factors. (Ref 7.12)
EBC Procedures	None
Timing Dimensions	<table><tr><th>Type</th><th>Normal</th></tr><tr><td>Average</td><td>30 min</td></tr><tr><td>Std</td><td>12 min</td></tr></table>
Trigger	• Period event
Basic Course of Event	**Organization Knowledge Performance Management** 1. Quality Manager monitors the Knowledge management service performance regularly 2. Quality Manager initiates Organization Knowledge Performance degradation report. 3. Quality Manager tracks and manages Organization Knowledge Performance resolution. 4. End
Alternative Path	None
Exception Path	**System Down** 1. Keep paper track until system is up and running 2. Update the System and clear all logs. 3. End.
Extension points	Staffing Performance, Inventory performance, Materials Management, Organizational Behavior Performance, Organizational knowledge Performance.
Preconditions	Organizational knowledge performance details are established and regularly monitored.
Post -conditions	Organizational knowledge performance gets evaluated.

6 Organization Knowledge Performance Management Process

Related Business Rules	BR-001, BR-002, BR-003 (Ref 7.1)
Related Risks	RR-001, RR-002, RR-003(Ref. 7.2)
Related Quality Attributes	Service Reliability, Availability, Usability, Normal Usability Operations, Confidentiality, Authenticity, Data Integrity, Non-repudiation, Accountability, Security Integration, Performance, Scalability, Extensibility, Auditability, (Ref 7.3)
Related Data Quality Dimensions	Accuracy, Believability, Objectivity, Relevance, Completeness, Timeliness, Appropriate Amount, Understandability, Interpretability, (Ref 7.4)
Related Primary SLA Terms	(Ref 7.9)
Related KPIs	OKDR, OKDSR (Ref 7.6)
Related CTQs	OKDRV, OKDSRV, MOM, PWOM, CTQ, IOM, TOM, WRM, DRM (Ref 7.7)
Actors/Agents	Quality Manager
Delegation	Delegation Rule -1: Agent Not Available 1. Delegate the Issue to additional Agent with same Role 2. Update the Issue 3. Log the Delegation Delegation Rule -2: Agent Overloaded 1. Delegate the Issue to additional Agent with same Role 2. Update the Issue 3. Log the Delegation
Escalation	Rule 1: Performance, operational legal Issues 1. Escalate to environmental services department head. 2. Log Escalation
Process Map	Section 5.1
Process Model	Section 6.1
Other References	Appendix A: Business Process Modeling Notation Reference

	Appendix B: Chain of Infection

6.3 Organization Knowledge Performance Management – Roles and Responsibilities

Roles	Responsibilities
Quality Manager	• Monitors and controls the Organizational knowledge service performance • Initiates Organization Knowledge Performance degradation report • Tracks and manages Organization Knowledge Performance resolution

6.4 Sub Process – Monitor & Analyze Organization Knowledge Performance

6.5 Sub Process – Monitor & Analyze Organization Knowledge Performance Specification

Specification	Description
Summary/Purpose	The purpose of this process is to monitor and analyze Organizational knowledge performance
Scope	This is a level 2 Process Specification.
Primary Reference	• Lean six sigma- Quality Standard
Related ESM Practices	Staffing Performance, Inventory performance, Organization Knowledge Management, Organizational Behavior Performance, Materials Performance.
Related Business Driver	Evaluation of Organizational knowledge management's quality of service
Related Operational Policies	OP-002 (Ref. 7.5)
Assumptions	All Organizational knowledge commitments (SLA, customer service, etc) are recorded.
Voice of Customer	Hygiene, High and Consistent Quality of standards, Free of Infections, Timely Services, High Coordinating, Remove Waste, Excellent Ergonomic, Safety, Appearance, Excellent Worker Attitude. (Ref 7.10)
Customer Satisfaction Measure	Customer satisfaction index
COI Correlation	None
Raw Materials	None
Equipment & Accessories	Automated System for Organization Knowledge Performance Management.

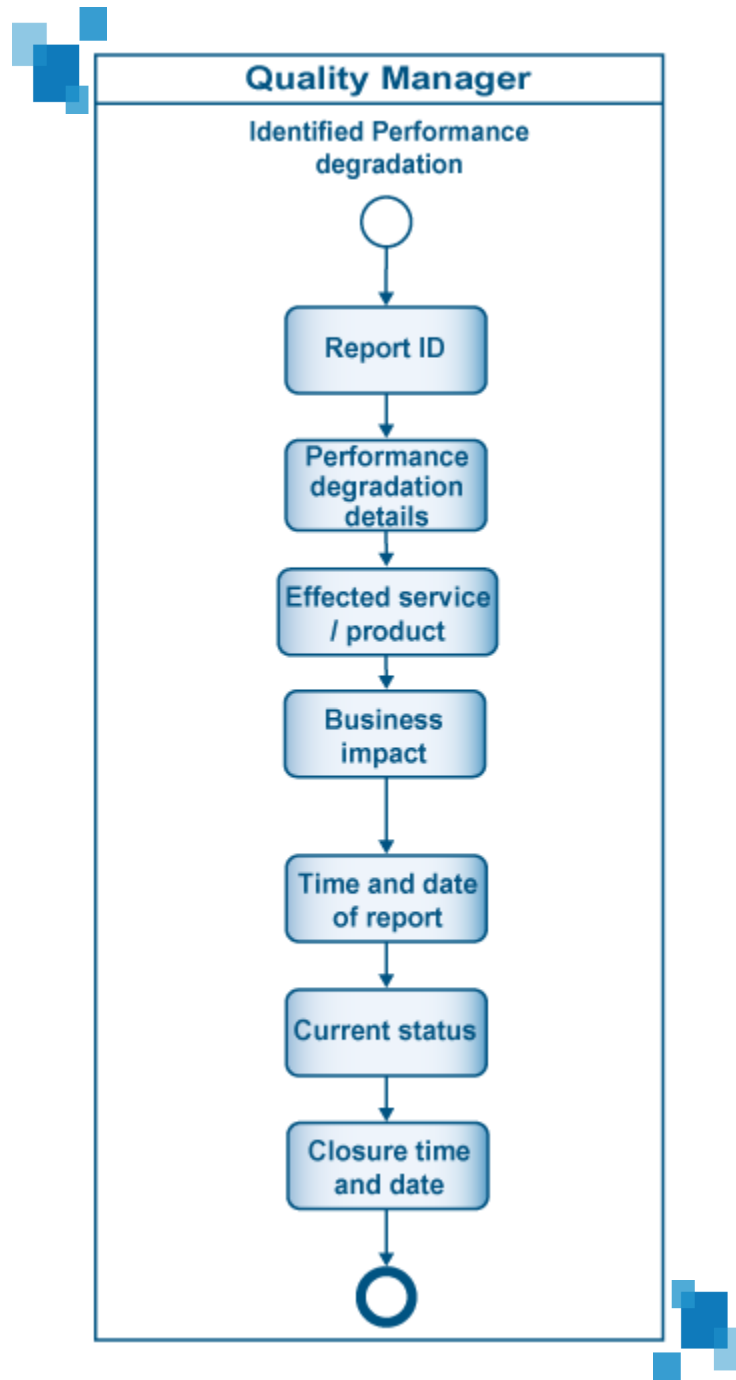# 6 Organization Knowledge Performance Management Process

MSD Management	Lifting/carrying, Disability, Force, Loaded motion, Physical ergonomics, Posture change, Excessive force, Scarceness, Noise, Concentration, Floor hazards, Clothing, Psychosocial factors. (Ref 7.12)
EBC Procedures	None
Timing Dimension	<table><tr><th>Type</th><th>Normal</th></tr><tr><td>Average</td><td>30 min</td></tr><tr><td>Std</td><td>12 min</td></tr></table>
Trigger	• Periodic activity.(quarterly or bi annually)
Basic Course of Event	**Organization Knowledge Performance Management** 1. Quality Manager collects the performance data 2. Quality Manager analyzes Organizational knowledge related data (, KPIs, SLA, process quality, record accuracy) 3. Ends.
Alternative Path	**Organization Knowledge Performance Management(not okay)** 1. Quality Manager collects the performance data 2. Quality Manager analyzes Organizational knowledge related data (, KPIs, SLA, process quality, record accuracy) 3. Quality Manager identifies business Impact (high, medium, low) 4. Quality Manager creates performance degradation report. 5. End
Exception Path	**System Down** 1. Keep paper track until system is up and running 2. Update the System and clear all logs. 3. End.
Extension points	Organization Knowledge Performance degradation report process
Preconditions	Business impact rules are established.
Post -conditions	Organization Knowledge Performance gets analyzed.

Related Business Rules	BR-002 (Ref 7.1)
Related Risks	RR-003 (Ref 7.2)
Related Quality Attributes	Service Reliability, Availability, Usability, Normal Usability Operations, Confidentiality, Authenticity, Data Integrity, Non-repudiation, Accountability, Security Integration, Performance, Scalability, Extensibility, Auditability (Ref 7.3)
Related Data Quality Dimensions	Accuracy, Believability, Objectivity, Relevance, Completeness, Timeliness, Appropriate Amount, Understandability, Interpretability, (Ref 7.4)
Related Primary SLA Terms	(Ref 7.9)
Related KPIs	OKDR (Ref 7.6)
Related CTQs	OKDRV(Ref 7.7)
Actors/Agents	Quality Manager
Delegation	Delegation Rule -1: Agent Not Available 1. Delegate the Issue to additional Agent with same Role 2. Update the Issue 3. Log the Delegation Delegation Rule -2: Agent Overloaded 1. Delegate the Issue to additional Agent with same Role 2. Update the Issue 3. Log the Delegation
Escalation	Rule 1: Performance, operational legal Issues 1. Escalate to environmental services department head. 2. Log Escalation
Process Map	Section 5.1
Process Model	Section 6.4
Other References	Appendix A: Business Process Modeling Notation Reference

	Appendix B: Chain of Infection

6.6 Sub Process – Monitor & Analyze Organization Knowledge Performance Roles and Responsibilities

Roles	Responsibilities
Quality Manager	• Quality Manager collects the performance data • Quality Manager analyzes Organizational knowledge related data (, KPIs, SLA, process quality, record accuracy) • Quality Manager conducts Business impact analysis

6.7 Sub Process – Organization Knowledge Performance Degradation Report

6.8 Sub Process – Organization Knowledge Performance Degradation Report Specification

Specification	Description
Summary/Purpose	The purpose of this process is to create Organization Knowledge Performance degradation report.
Scope	This is a level 2 Process Specification.
Primary Reference	• Lean six sigma- Quality Standard
Related ESM Practices	Staffing Performance, Inventory performance, Organization Knowledge Management, Organizational Behavior Performance, Materials Performance.
Related Business Driver	Establishing the record of Organizational knowledge performance failure.
Related Operational Policies	OP-001(Ref. 7.5)
Assumptions	Performance failures have been accurately identified.
Voice of Customer	Hygiene, High and Consistent Quality of standards, Free of Infections, Timely Services, High Coordinating, Remove Waste, Excellent Ergonomic, Safety, Appearance, Excellent Worker Attitude. (Ref 7.10)
Customer Satisfaction Measure	Customer satisfaction index
COI Correlation	None
Raw Materials	None
Equipment & Accessories	Automated System for Organization Knowledge Performance Management.

6 Organization Knowledge Performance Management Process

MSD Management	Lifting/carrying, Disability, Force, Loaded motion, Physical ergonomics, Posture change, Excessive force, Scarceness, Noise, Concentration, Floor hazards, Clothing, Psychosocial factors. (Ref 7.12)
EBC Procedures	None
Timing Dimension	<table><tr><td>**Type**</td><td>**Normal**</td></tr><tr><td>**Average**</td><td>30 min</td></tr><tr><td>**Std**</td><td>12 min</td></tr></table>
Trigger	• Identified performance degradation
Basic Course of Event	**Organization Knowledge Performance Management** 1. Quality Manager establishes a report ID 2. Quality Manager identifies the performance degradation detail 3. Quality Manager identifies effected service /product. 4. Quality Manager identifies business impact. 5. Quality Manager identifies time and date of the report 6. Quality Manager updates the current status from time to time based on the progress 7. Quality Manager enters the closure time and date upon completion of the service degradation report 8. Ends.
Alternative Path	None
Exception Path	**System Down** 1. Keep paper track until system is up and running 2. Update the System and clear all logs. 3. End.
Extension points	Track and Manage Organizational knowledge performance
Preconditions	Identification of performance failure.

Post -conditions	Degradation report gets formulated.
Related Business Rules	BR-003 (Ref 7.1)
Related Risks	RR-001 (Ref. 7.2)
Related Quality Attributes	Reliability, Availability, Confidentiality, Authenticity, Data Integrity, Non-repudiation, Accountability, Performance, Auditability (Ref 7.3)
Related Data Quality Dimensions	Accuracy, Objectivity, Free-of-Error, Relevance, Completeness, Timeliness, Understandability, Interpretability, Concise Representation (Ref 7.4)
Related Primary SLA Terms	(Ref 7.9)
Related KPIs	OKDSR (Ref 7.6)
Related CTQs	OKDRV(Ref 7.7)
Actors/Agents	Quality Manager.

Delegation	Delegation Rule -1: Agent Not Available
	   1. Delegate the Issue to additional Agent with same Role
	   2. Update the Issue
	   3. Log the Delegation
	Delegation Rule -2: Agent Overloaded
	   1. Delegate the Issue to additional Agent with same Role
	   2. Update the Issue
	   3. Log the Delegation

Escalation	Rule 1: Performance, operational legal Issues
	   1. Escalate to environmental services department head.
	   2. Log Escalation

Process Map	Section 5.1
Process Model	Section 6.7

| Other References	Appendix A: Business Process Modeling Notation Reference
	Appendix B: Chain of Infection

6.9 Sub Process – Organization Knowledge Performance Degradation Report Roles and Responsibilities

Roles	Responsibilities
Quality Manager	Quality Manager establishes a report ID, establishes product / service details, identifies the performance degradation detail, identifies effected service /product, identifies time and date of the report, updates the current status from time to time based on the progress, enters the closure time and date upon completion of the service degradation report

6.10 Sub Process – Track & Manage Organization Knowledge Performance

6 Organization Knowledge Performance Management Process
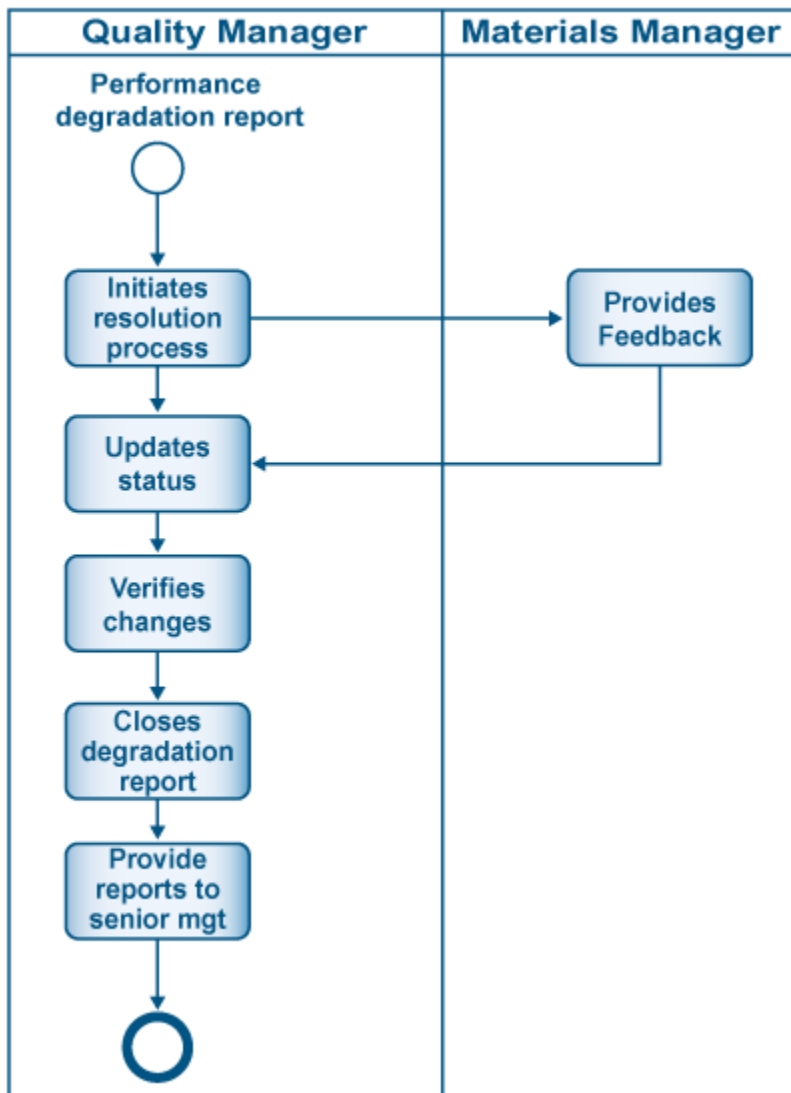
6.11 Sub Process – Track & Manage Organization Knowledge Performance Specification

Specification	Description
Summary/Purpose	The purpose of this process is to track and manage Organizational knowledge performance.
Scope	This is a level 2 Process Specification.
Primary Reference	• Lean six sigma - Quality Standard
Related ESM Practices	Staffing Performance, Inventory performance, Organization Knowledge Management, Organizational Behavior Performance, Materials Performance.
Related Business Driver	Faster correction of identified performance degradation.
Related Operational Policies	OP-001 (Ref. 7.5)
Assumptions	Organizational knowledge Manager is supportive in rectifying the performance degradation caused.
Voice of Customer	Hygiene, High and Consistent Quality of standards, Free of Infections, Timely Services, High Coordinating, Remove Waste, Excellent Ergonomic, Safety, Appearance, Excellent Worker Attitude. (Ref 7.10)
Customer Satisfaction Measure	Customer satisfaction index
COI Correlation	None
Raw Materials	None
Equipment & Accessories	Automated System for Organization Knowledge Performance Management.

MSD Management	Lifting/carrying, Disability, Force, Loaded motion, Physical ergonomics, Posture change, Excessive force, Scarceness, Noise, Concentration, Floor hazards, Clothing, Psychosocial factors. (Ref 7.12)
EBC Procedures	None
Timing Dimension	<table><tr><td>Type</td><td>Normal</td></tr><tr><td>Average</td><td>30 min</td></tr><tr><td>Std</td><td>12 min</td></tr></table>
Trigger	• Performance degradation report
Basic Course of Event	**Organization Knowledge Performance Management** 1. Quality Manager initiate resolution process 2. Organizational knowledge Manager provides feedback 3. Quality Manager updates the status in performance degradation report 4. Quality Manager verifies changes 5. Quality Manager closes degradation report 6. Quality Manager provides reports to senior management. 7. Ends.
Alternative Path	None
Exception Path	**System Down** 1. Keep paper track until system is up and running 2. Update the System and clear all logs. 3. End.
Extension points	Staffing Performance, Inventory performance, Materials Management, Organizational Behavior Performance, Organizational knowledge Performance
Preconditions	Communication channel is well established with Materials Manager.
Post -conditions	Performance degradation gets corrected.

6 Organization Knowledge Performance Management Process

Related Business Rules	BR-001 (Ref 7.1)
Related Risks	RR-002 (Ref. 7.2)
Related Quality Attributes	Reliability, Availability, Confidentiality, Authenticity, Data Integrity, Non-repudiation, Accountability, Performance, Auditability (Ref 7.3)
Related Data Quality Dimensions	Accuracy, Free-of-Error, Completeness, Timeliness, Understandability, Interpretability, Concise Representation (Ref 7.4)
Related Primary SLA Terms	(Ref 7.9)
Related KPIs	OKDSR (Ref 7.6)
Related CTQs	OKDSRV (Ref 7.7)
Actors/Agents	Quality Manager, Organizational knowledge manager
Delegation	Delegation Rule -1: Agent Not Available 　1.　Delegate the Issue to additional Agent with same Role 　2.　Update the Issue 　3.　Log the Delegation Delegation Rule -2: Agent Overloaded 　1.　Delegate the Issue to additional Agent with same Role 　2.　Update the Issue 　3.　Log the Delegation
Escalation	Rule 1: Performance, operational legal Issues 　1.　Escalate to environmental services department head. 　2.　Log Escalation
Process Map	Section 5.1
Process Model	Section 6.9
Other References	Appendix A: Business Process Modeling Notation Reference Appendix B: Chain of Infection

6.12 Sub Process – Track & Manage Organization Knowledge Performance Roles and Responsibilities

Roles	Responsibilities
Quality Manager	• Quality Manager initiate resolution process, updates the status in performance degradation report, verifies changes done by Materials manager, and closes degradation report. • Quality Manager provides reports to senior management.
Organizational knowledge Manager	• Organizational knowledge manager provides feedback

Reference

7 Reference

This chapter serves as a prime reference to Chapter 6 and presents the details supporting Chapter 6 in tabular formats. This chapter consists of various variable values which would frequently evolve or change as organization's environmental Services department's Organization Knowledge Performance Management process matures or changes

7.1 Business Rules

BR ID	Description	Context	Rule	Source
BR-001	For SLA breaches with monetary implications, the Organizational knowledge management supplier is entitled to pay all the damages with regards to its SLA violation.	Business	TBD	TBD
BR-002	AI vital operational performance data should be collected	Business	TBD	TBD
BR-003	All the performance deviations should be reported	Business	TBD	TBD

7.2 Risk

Risk ID	Description	Source	Severity Level	Status	Resolution
RR-001	All the performances are not recorded	NA	High	TBD	Effort should be undertaken to ensure all the performance are recorded and hence analyzed.
RR-002	Performance degradation identified are not	NA	High	TBD	Senior management should ensure that all the identified degradation reports are settled within a stipulated time frame.

	properly followed up				
RR-003	Not all data is monitored.	NA	Medium	TBD	All the performance related vital data needs to be monitored regularly.

7.3 Quality Attribute

QA ID	Description	Threshold
QA-001	Interoperability	TBD
QA-002	Reliability	TBD
QA-003	Service Reliability	TBD
QA-004	Availability	TBD
QA-005	Usability	TBD
QA-006	Normal Usability Operations	TBD
QA-007	Confidentiality	TBD
QA-008	Authenticity	TBD
QA-009	Data Integrity	TBD
QA-010	Availability	TBD
QA-011	Non-repudiation	TBD
QA-012	Accountability	TBD
QA-013	Security Integration	TBD
QA-014	Performance	TBD
QA-015	Scalability	TBD

QA-016	Extensibility	TBD
QA-017	Adaptability	TBD
QA-018	Testability	TBD
QA-019	Auditability	TBD
QA-020	Operability and Deployability	TBD

7.4 Data Quality Dimension

DQ ID	Description	Threshold
DQ-001	Accuracy	TBD
DQ-002	Believability	TBD
DQ-003	Reputation	TBD
DQ-004	Objectivity	TBD
DQ-005	Free-of-Error	TBD
DQ-006	Value Added	TBD
DQ-007	Relevance	TBD
DQ-008	Completeness	TBD
DQ-009	Timeliness	TBD
DQ-010	Appropriate Amount	TBD
DQ-011	Understandability	TBD
DQ-012	Interpretability	TBD
DQ-013	Concise Representation	TBD

7 Reference

7.5 Operation Policy

Policy ID	Description	Context	Importance (1-5)
OP-001	All the degradation reports are resolved within 5 working days from the day of identification	TBD	TBD
OP-002	Business impact should be identified only for performance deviation.	TBD	TBD

7.6 KPI

Name	Acronym	Description	Context	Importance	Soft Threshold	Hard Threshold
Organizational knowledge degradation rate	OKDR	Number of Organizational knowledge degradation reported per month	NA	TBD	TBD	TBD
Organizational Knowledge degradation solving rate	OKDSR	Number of reported organizational knowledge reports solved by per month	NA	TBD	TBD	TBD

7.7 CTQ

Name	Acronym	Description	Context	Importance	Soft Threshold	Hard Threshold
Organizational knowledge degradation rate variation	**OKDRV**	Standard deviation of OKDR	NA	TBD	TBD	TBD
Organizational Knowledge degradation solving rate variation	**OKDSRV**	Standard deviation of OKDSR	NA	TBD	TBD	TBD
Motion Optimization Measure	**MOM**	Management of motion optimization measure	NA	TBD	TBD	TBD
Paper work Optimization Measure	**PWOM**	Management of Paper work Optimization Measure	NA	TBD	TBD	TBD
Correction reduction measure	**CRM**	Management of Correction reduction measure	NA	TBD	TBD	TBD
Materials Optimization Measure	**IOM**	Management of Materials Optimization Measure	NA	TBD	TBD	TBD

Transportation Optimization Measure	TOM	Management of Transportation Optimization Measure	NA	TBD	TBD	TBD
Waiting Reduction Measure	**WRM**	Management of Waiting reduction Measure	NA	TBD	TBD	TBD

7.8 Abstract Time – Scale

Name	Acronym	Description	Quantification
TBD	TBD	TBD	TBD

7.9 SLA Terms

SLA ID	Description	Context	KPI	CTQ
TBD	**TBD**	**TBD**	**TBD**	**TBD**

7.10 Voice of Customer

VOC	Customer	Description	Perceived Value
Hygiene	Doctors, Patients, Nurses, Housekeeping Supervisors, Housekeepers, Clerks, Visitors, Environmental	The environment should be attributing with great hygiene level.	• High quality healthcare services • Safe environment

	Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker.		• Low infection rate • Low risk
High and Consistent Quality of standards	Doctors, Patients, Nurses, Housekeeping Supervisors, Clerks, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	High and Consistent Quality of standards.	• Reputation of organization or hospital • Professionalism • Trust • Positive psychological bias
Free of Infections	Doctors, Patients, Nurses, Housekeeping Supervisors, Clerks, Visitors, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	Infections free and healthy environment.	• Safe environment • Reputation of hospital or organization • Trust • Quick healing • Positive psychological bias • Low risk
Timely Services	Doctors, Patients, Nurses, Housekeeping Supervisors, Visitors, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste	The response time for any request should be very short.	• Professionalism • Trust • Positive psychological bias • Reputation of hospital or organization • Safe environment

	management worker, Housekeepers		
High Coordinating	Doctors, Patients, Nurses, Housekeeping Supervisors, Clerks, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	There should be high level of coordination between hospital employees and departments.	• Professionalism • Trust • Low risk • Excellent Ergonomic
Remove Waste	Patients, Nurses, Housekeeping Supervisors, Clerks, Visitors, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	Wastes should be either removed or minimized.	• Safe environment • Low infection rate • Low risk • Reputation of hospital or organization • Low cost • Timely response • High quality
Excellent Ergonomic	Doctors, Patients, Nurses, Housekeeping Supervisors, Clerks, Visitors, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	The hospital environment and policy should comply with physical, organization and cognitive ergonomics.	• Professionalism • Trust • Job accuracy • Excellent communication • Low risk • Reputation of hospital or organization

Safety	Doctors, Patients, Nurses, Housekeeping Supervisors, Clerks, Visitors, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	Hospital environment should comply with occupational health and safety procedures.	• Safe environment • Professionalism • Low risk
Appearance	Housekeeping Supervisors, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	The appearance of the workers, supervisors and manager should induce positive biases.	• Professionalism • Reputation of hospital or organization • Trust • Positive psychological bias
Excellent Worker Attitude	Housekeeping Supervisors, Environmental Services Management, Laundry worker, Transportation worker, Maintenance worker, Waste management worker, Housekeepers	The environment service employee should be free from negative attitudes.	• Professionalism • Reputation of hospital or organization • Trust • Positive psychological bias • Minimum disputes • Less employee turn over

7.11 Customer Context Matrix

Name of Customer	Acronym	Context of Customer	Coordination Process Area
Doctors	DOC	Direct	HIS Coordination

Patients	PAT	Direct	HIS Coordination
Nurses	NUR	Direct	HIS Coordination, Nurse Coordination
Housekeeping Supervisors	HKS	Direct	Quality Coordination, Nurse Coordination, infection control coordination
Clerks	CLR	Direct	HIS Coordination
Visitors	VIS	Indirect	HIS Coordination
Environmental Services Management	ESM	Direct	Nurse Coordination, infection control coordination
Other hospital workers	OHW	Indirect	Security coordination
Laundry worker	LDW	Direct	Nurse Coordination, HIS Coordination
Transportation worker	TRW	Direct	Quality Coordination, HIS Coordination
Maintenance worker	MAW	Direct	Quality Coordination, HIS Coordination
Waste management worker	WMW	Direct	Quality Coordination, HIS Coordination
Infection control professional	ICP	Indirect	Infection Control Coordination
Housekeepers	HK	Direct	HIS Coordination, Nurse Coordination

7 Reference

7.12 MSD Attributes

MSD Attribute	Description
Lifting/carrying	Large vertical movements, long carry distances.
Disability	Pose a risk to those with a health problem or a physical or learning disability.
Force	High initial forces to get the load moving.
Loaded motion	High forces to keep the load in motion.
Physical ergonomics	Constraints on body posture/positioning, confined spaces/narrow doorways.
Posture change	Strong force and awkward movement/posture. E.g. bent wrists.
Excessive force	Excessive force to grip raw materials, product or tools
Scarceness	Inadequate tools for repetitive use screwdrivers, pliers, hammers.
Noise	Noise which cause stress and muscle tension.
Concentration	Tasks require high levels of attention/concentration especially where the worker has little control over allocation of effect to the task.
Floor hazards	Remove slip and trip hazards through provision of appropriate floor surfaces and good keeping.
Clothing	Clothing/PPE may prevent sufficient movement for the task or reduce capability. E.g. to grip consider handling needs when selecting work wear/gloves.
Psychosocial factors	Adverse psychosocial factors can increase the potential for manual handling injuries. A workers psychosocial response to work and the workplace conditions can affect their health in general and MSDs in particular. The factors include the content, design, organization and management of the work

Glossary / Acronyms

8 Glossary / Acronyms

Terminology	Description
Abstract Time Scale	Time Scale that will be quantified both during operations and continuous process improvement. These time identifiers are correlated with the soft thresholds that are dynamically specified during life span of the process.
BPMN	**Business Process Modelling Notation** Business Process Modelling Notation is the practice of documenting an organisation's key business processes in a graphical format.
Business Rules	Business Rules are intended to assert business structure or to control or influence the behaviour of the Business. Business rules describe the operations, definitions and constraints that apply to an organization
CRR	Contract Review Rate
CRRV	Contract Review rate Variation.
CTQ	**Critical to Quality** Critical To Quality (CTQ) is continuous measuring and monitoring tool agreed between the internal processes to achieve greater customer satisfaction.
Data Quality Dimensions	The totality of features and characteristics of data that bears on their ability to satisfy a given purpose
EBC	Evidence based Cleaning
ESM	Environmental services Map
KPI	**Key Performance Indicator** A metric that is used to help manage a process, IT service or activity. Many metrics may be measured, but only the most important of these are defined as KPIs and used to actively manage and report on the process, IT service or activity. KPIs should be selected to ensure that efficiency, effectiveness, and cost effectiveness are all managed.
MSD	Macro skeleton Disorder
OLA	**Organization level Agreement**

8 Glossary / Acronyms

	An Agreement between an IT Service Provider and another part of the same Organization
Operational Policy	Rules defined to operate the process.
Quality Attributes	Quality attributes are non-functional requirements used to evaluate the performance of a process.
Risk	A possible event that could cause harm or loss, or affect the ability to achieve Objectives. A risk is measured by the probability of a threat, the vulnerability of the asset to that threat, and the impact it would have if it occurred.
SLA	**Service Level Agreement** An Agreement between an IT Service Provider and a Customer. The SLA describes the IT Service, documents Service Level Targets, and specifies the responsibilities of the IT Service Provider and the Customer
VOC	**Voice of Customer**

Appendix A: Business Process Modeling Notation Reference

APPENDIX.
A

9 Appendix A: Business Process Modeling Notation Reference

INTRODUCTION

Business Process Modelling ("BPM") is the practice of documenting an organisation's key business processes in a manner which:

- Is highly graphical
- Focuses on business terminology rather than technical
- Allows all business steps/tasks to be included, not just those which involve a computer system

Mentioned below are the various core concepts of BPMN with the relevant definition and graphic notation.

PROCESS START

All processes have to start somehow, general notation for a process models commence with the START event, is a circle.	
One can use simply the *basic unmarked* start event as above, or one of the different types of start event, to provide more detail as described below.	
If a process starts when some sort of message arrives, mail, email, text. Following notation can be used	**Message start**
If a process starts by virtue of the passage of time – e.g. 1st Jan review or 4 days after the purchase order is sent, following notation can be used	**TIMER Start**
If the process starts when a rule/condition is met – e.g. when Incident Impact is more than 100,000.	**RULE Start**
If a process starts when another process finishes. Following notation can be used	**LINK Start**
If there is more than one 'trigger' for a process to start. Following notation can be used	**MULTIPLE Start**

9 Appendix A: Business Process Modeling Notation Reference

TASK AND SUB PROCESS

Task	Task is a lowest level activity in a process map. A task is used when the work is not broken down to a finer level of detail	My Task
Sub Process	A Sub-process is a compound activity which can be broken down into finer details.	Sub-process #1
Loops	Loops task or sub process continues to iterate until the loop condition is true.	Review

INTERMEDIATE EVENTS

Following notation can be used to display the intermediate event, similar to start and end events.						
	BASIC	**MESSAGE**	**TIMER**	**RULE**	**LINK**	**MULTIPLE**
	◯	✉	🕐	▤	➡	✦

PROCESS END

All processes have to end somehow, general notation for a process models end will be a circle with a solid line.	◯
One can use simply use the *basic* end event as above, or you can use one of the different types of end event, to provide more detail, as described below:	

9 Appendix A: Business Process Modeling Notation Reference

If a process ends by something being sent via a message of some sort e.g., mail, email, document, following notation can be used.	MESSAGE End ✉
If the end of this process causes the start of another, following notation can be used.	LINK End ➡
If more than one consequence of the process ending, following notation can be used.	MULTIPLE End ✷

SWIMLANES

Pool	A *Pool* represents a participant in a Process. It is also acts as a "swimlane" and a graphical container for partitioning a set of activities from other Pools	Name
Lane	A *Lane* is a sub-partition within a Pool and will extend the entire length of the Pool, either vertically or horizontally. Lanes are used to organize and categorize activities.	Name

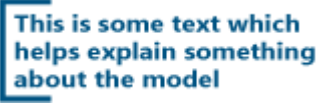## CONNECTORS

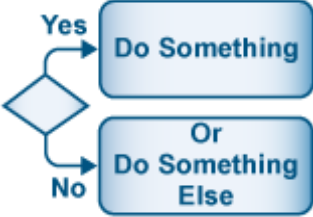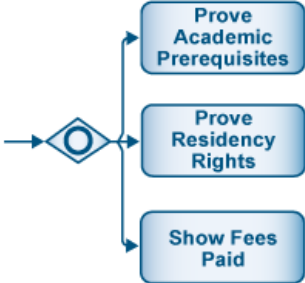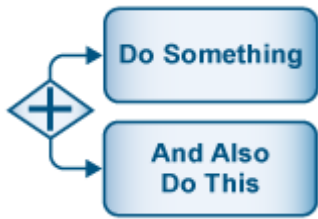|		
Sequence Flow	A *Sequence Flow* is represented by a solid line with a solid arrowhead (see the figure to the right) and is used to show the order (the sequence) that activities will be performed in a Process.	⟶

Message Flow	A *Message Flow* is represented by a dashed line with an open arrowhead (see the figure to the right) and is used to show the flow of messages between two separate Process Participants. In BPMN, two separate Pools in the Diagram will represent the two Participants.	

ARTIFACTS

Annotation	The ANNOTATION shape is used to add comments to a process model. It consists of text in a square left bracket	This is some text which helps explain something about the model
Data Object	A data object represents a piece of data which is required or produced by the process eg. Customer details, output.	 Application Form
Group	A grouping is purely for documentation or explanatory purposes. It has no impact on the model. It consists of a rectangle with dashed lines and rounded corners, usually enclosing other objects.	

GATEWAYS

Exclusive	The values of the process are examined to determine which path to take	

9 Appendix A: Business Process Modeling Notation Reference

Inclusive	Each branch will be evaluated and will not stop when one branch condition becomes true.	
Parallel	Provides a mechanism to synchronise parallel flow and to create parallel flow.	

Appendix B: Chain of Infection

APPENDIX.

B

In order to control or prevent infection it is essential to understand that transmission stages of a pathogen resulting in infection requires the six vital links (Refer to the table below).

Each link mentioned below must be present for infection or colonization to proceed, and breaking any of the links can prevent the infection.

The section below details out the six stages:

Stage	Link	Description
1	Infectious Agent	Any disease-causing microorganism (pathogen)
2	The Reservoir Host	The organism in which the infectious microbes reside
3	The Portal of Exit	Route of escape of the pathogen from the reservoir.
4	The Route of Transmission	Method by which the pathogen gets from the reservoir to the new host
5	The Portal of Entry	Route through which the pathogen enters its new host
6	The Susceptible Host	The organism that accepts the pathogen

Link 1: Infectious Agent

The causative agent for infection is any microorganism capable of producing disease. Microorganisms responsible for infectious diseases include bacteria, viruses, rickettsiae, fungi, and protozoa. Sometimes, microorganisms are part of patient's own body flora and can cause infection in the immunocompromised host. These infections are called endogenous infections. Infections which are acquired from external sources are called exogenous infections.

Link 2: Reservoir Host

The second link in the chain of infection is the reservoir, i.e. the environment or object in or on which a microorganism can survive and, in some cases, multiply. Inanimate objects, human beings, and animals can all serve as reservoirs, providing the essential requirements for a microorganism to survive at specific stages in its life cycle.

Infectious reservoirs abound in health care settings, and may include everything from patients, visitors, and staff members to furniture, medical equipment, medications, food, water, and blood.

Link 3: Portal of Exit

The portal of exit is the path by which an infectious agent leaves its reservoir. Usually, this portal is the site where the microorganism grows. Common portals of exit associated with human reservoirs include the respiratory, genitourinary, and gastrointestinal tracts, the skin and mucous membranes and the placenta (transmission from mother to fetus)

Link 4: Route of Transmission

The microorganism can be acquired by inhalation (through respiratory tract), ingestion (through gastrointestinal tract), inoculation (through accidental sharp injury or bites), contact (during sexual intercourse) and transplacental transmission (microbes may cross placenta from the mother to fetus). It is important to remember that some microorganisms use more than one transmission route to get from the reservoir to a new host.

Of the six links in the chain of infection, the mode of transmission is the easiest link to break and is key to control of cross-infection in hospitals.

Link 5: The Portal of Entry

The portal of entry is the path by which an infectious agent invades a susceptible host. Usually, this path is the same as the portal of exit. For example, the portal of entry for tuberculosis and diphtheria is through the respiratory tract, hepatitis B and Human Immunodeficiency Virus enter through the bloodstream or body fluids and Salmonella enters through the gastrointestinal tract. In addition, each invasive device, e.g. intravenous line, creates an additional portal of entry into a patient's body thus increasing the chance of developing an infection.

Link 6: The Susceptible host

The final link in the chain of infection is the susceptible host. The human body has many defense mechanisms for resisting the entry and multiplication of pathogens. When these mechanisms function normally, infection does not occur. However, in immunocompromised patients, where the body defenses are weakened, infectious agents are more likely to invade the body and cause an infectious disease. In addition, the very young and the very old are at higher risk for infection because in the very young the immune system does not fully develop until about age 6 months, while old age is associated with declining immune system function as well as with chronic diseases that weaken host defenses.