Oversight and Management of POCT in a Large Health Institution

A comprehensive quality management framework ensuring patient safety through accurate, reliable, and timely results in a large tertiary care center.

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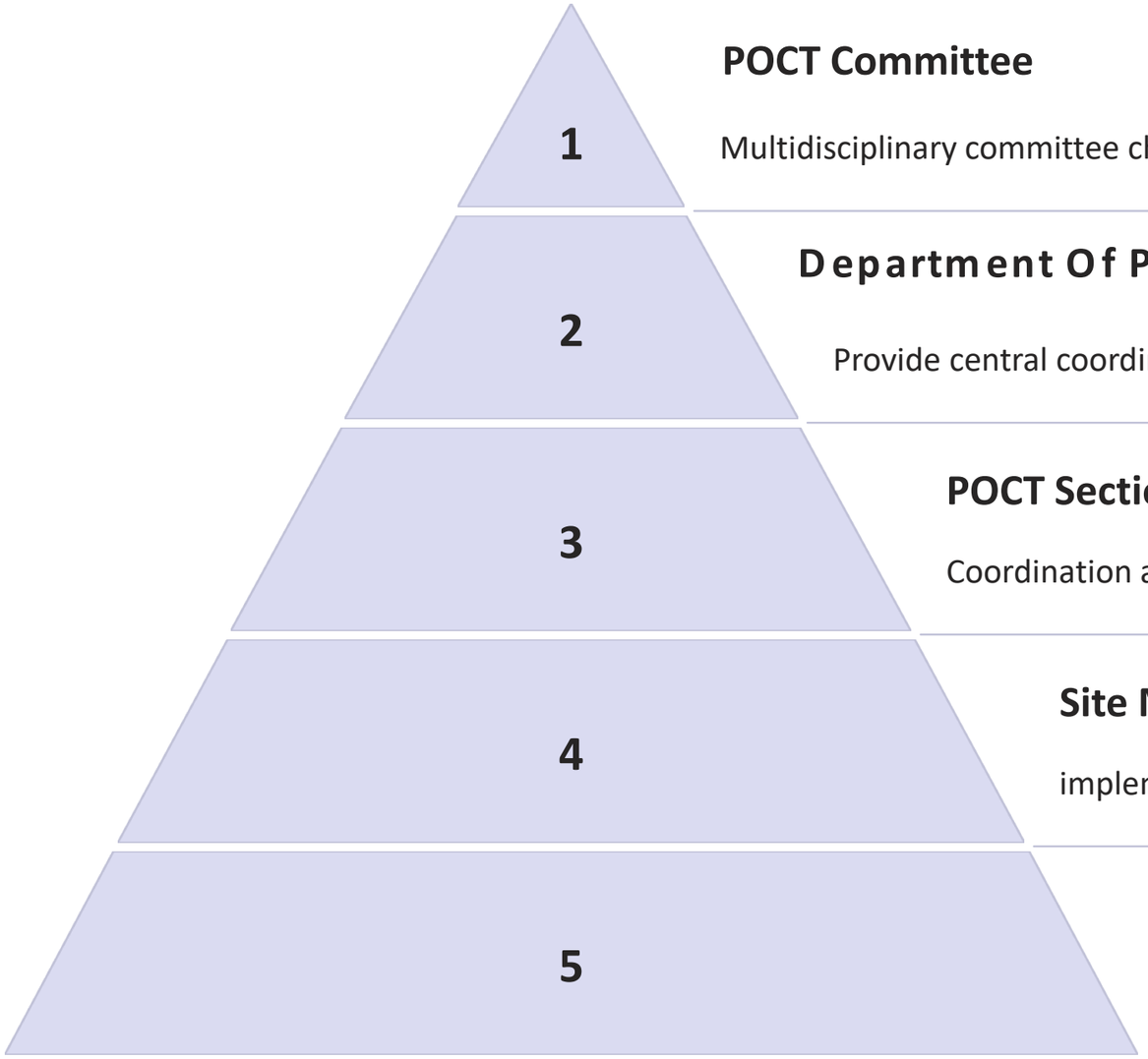
POCT Structure



POCT Committee

Multidisciplinary committee chaired by laboratory department

Department Of Pathology And Laboratory Medicine

Provide central coordination to support and monitor all the activities in POCT section.

POCT Section

Coordination and monitoring

Site Managers & Representatives

implementation and compliance

Healthcare Providers

Direct testing and documentation

POCT Quality Framework

12 Quality System Essentials

CLSI-defined coordinated activities serving as building blocks for comprehensive quality management in POCT operations.

Patient Safety Focus

Ensuring optimal quality to guarantee patient safety through accurate, reliable, and timely diagnostic results.

Regulatory Compliance

Meeting CAP, CLIA, CBAHI and JCIA standards for laboratory testing excellence and accreditation requirements.

POCT Section Organizational Structure

01

POCT Section Head

Oversees general operations, serves as Medical Director for all POCT service, and reviews QC records monthly.

02

POCT Senior /Supervisor

Manages POCT Technologists, performs training and competency assessments, review the monthly site inspections.

03

POCT Resources

Site-based troubleshooting experts, perform recertification for operators, monitor compliance with policies.

04

POCT Operators

Healthcare providers performing testing, maintain competency requirements, document all POCT activities.

POCT implementation plan - 2023

#	complete	tasks	Assigned to	PROGRESS	START	END		
1		Regulatory requirements- test validation (comparison, Linearity, calibration verification, Precision (within one day & between days))	all POC STAFF					
2		Other CAP requirements for non- waived testing	POCT senior /Supervisor					
3		IT requirements/ implementation, Training support	HITA					
4		Barcode Identification	HITA					
5		POC Staff training	Vendor					
6		End user Training	POC STAFF/nurse managers					
7		Reference range verification	all POC STAFF					
8		SOP	POCT senior /Supervisor					
9		LAB QMS	POCT senior /Supervisor					
#		MEMO	POCT senior /Supervisor					
#		Supplies - creating ORACLE items numbers	POCT senior /Supervisor					
#		Analyzers tagged and received	Biomed/Proparty					
#		Install analyzers in testing locations	POC STAFF					
#		IQCP	POCT senior /Supervisor					
#		Go live.						

POCT Blood Gas analysis

Total : 47 device Connected to LIS Via GemWeb middleware

Location: ICU, ER, OR

Current POCT Menu

POCT Blood Glucose

Total : more than 300 devices

Connected to LIS via AegisPOC middleware

Location: Inpatient , outpatient , ICU, ER and OR

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POCT Coagulation (ACT-LR , ACT)

Total : 23 device

Connected to LIS via AegisPOC middleware

Location: OR and ICU

Current POCT Menu

Made with GAMMA

POCT Urinalysis testing

Total : 20 device Connected to LIS via AegisPOC middleware

Location: ER and in-patient

POCT Thromboelastometry

Total : 10 device Connected to LIS Via GemWeb

Location: In all operation rooms

Current POCT Menu

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POCT Coagulation (PT-INR)

Total : 3 device
Connected to LIS via AegisPOC middleware
Location: OR

Current POCT Menu

Made with GAMMA

POCT Hemoglobin

Total : 1 device
Connected to LIS through the AgiesPOC
Location: lober room

Made with GAMMA

POCT Blood Ketone

Total : 2 devices
Connected to LIS via AegisPOC middleware
Location: ER and Endocrine Clinics

Current POCT Menu

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Current POCT Menu

- POCT Pregnancy testing (urine hCG)
- POCT Streptococcus A detection
- POCT Helicobacter Pylori testing

Manual documentation of the Patient result in LIS via AgiesPOC middleware

Location: Radiology, Urgent care and all procedures areas

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POCT Personnel Management

Initial Training

Comprehensive training modules including presentations, videos, hands-on practice, and competency assessments delivered through the institutional learning system or classroom-based training.

1

Competency Assessment

Twice yearly for first year, then annually. Includes direct observation, QC review, and problem-solving evaluation.

2

Ongoing Education

Regular updates, policy reviews, and skills maintenance through structured recertification programs.

3

Quality Control Program

QC Testing

Regular quality control performed according to manufacturer recommendations, with results reviewed before patient testing.

Calibration Verification

Biannual verification using high quality materials, with new lot testing and trend monitoring protocols.

Proficiency Testing

CAP survey participation for all analytes, with alternative PT methods when surveys unavailable.

Equipment Management

1

Validation Process

Method validation for non-waived testing, verification for waived testing, reference range establishment before implementation.

2

Maintenance Program

Preventive maintenance following manufacturer guidelines, troubleshooting support, and equipment history tracking.

3

Performance Monitoring

Monthly inspections, correlation studies for non-waived tests, and instrument replacement protocols when needed.

Compliance And Assessment

Internal Assessments

Monthly onsite inspections, QC compliance monitoring, reagent usage audits, and educational compliance reports.

External Assessments

CAP accreditation every 2 years, JCIA evaluation every 3 years, CBAHI assessment every 3 years.

Quality Indicators

Monthly compliance reports, trend analysis, process improvement opportunities, and corrective action tracking.

Connectivity transforms POCT into a safe, efficient, and compliant system

Interfaced Instruments

immediate result transfer after testing.

Centralized monitoring of devices & operators.

Auto-lockout for: Failed QC , Expired reagents, Uncertified operators

Compliance with CAP & JCIA made auditable.

Real-time data transfer ,automatic audit report and
Operator certification and privilege management

Success Through Systematic Management

12	100+	11
Quality Essentials	Testing Sites	Test Types
Comprehensive framework ensuring systematic quality management	**Hospital-wide coverage across all critical care areas**	**Diverse menu meeting clinical diagnostic needs**

Effective POCT oversight requires structured organization, comprehensive training, rigorous quality control, and continuous monitoring to ensure patient safety and regulatory compliance in large healthcare institutions.