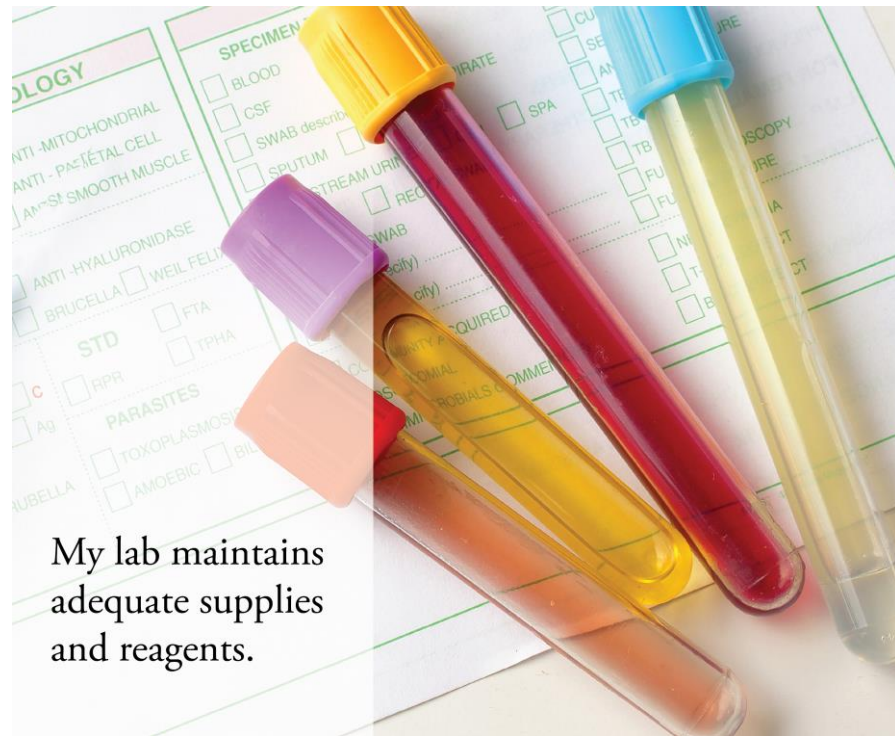


MODULE 4

Procurement Management

My lab maintains
adequate supplies
and reagents.



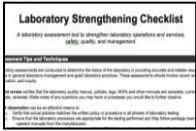
SLMTA Participant's Manual

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NOTE: Print this document single-sided and in color if possible.

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ACTIVITY SUMMARY SHEET

ACTIVITY	Forecasting and Calculating Ordering Amounts	Module 4
PURPOSE: An effective procurement management system is one that ensures sufficient inventory is available to meet testing needs while simultaneously avoiding waste incurred from unused and expired reagents. In this activity, participants learn how to forecast and determine reorder levels for their laboratory. The concepts are reinforced with an assigned homework activity.		
This activity supports the following laboratory management tasks and accreditation preparedness checklist items		
Management Tasks 	3.3 Monitor consumption rate and inventory level to determine when and how much to re-order 4.1 Accurately evaluate needs for equipment, supplies and reagents taking into consideration past patterns, present trends, and future plans 4.2 Place orders as necessary in accordance with needs and budgetary constraints 4.4 Appropriately document and maintain accurate records of all purchase orders and requisitions	
Checklist Items 	1.1 <u>Laboratory Quality Manual</u> Is there a current laboratory quality manual, composed of the quality management system's policies and procedures, and has the manual content been communicated to and understood and implemented by all staff? 2.3 <u>Annual Review of Quality Management Systems</u> Does the laboratory management annually perform a review of all quality systems at a management review meeting? 7.1 <u>Inventory and Budgeting System</u> Is there a system for accurately forecasting needs for supplies and reagents? 7.4 <u>Budgetary Projections</u> Are budgetary projections based on personnel, test, facility and equipment needs, and quality assurance procedures and materials? 7.8 <u>Laboratory Inventory System</u> Are inventory records complete and accurate, with minimum and maximum stock levels denoted? 7.9 <u>Usage Rate Tracking of Consumables</u> Is the consumption rate monitored? 7.10 <u>Inventory Control System – Stock Counts</u> Are stock counts routinely performed? 7.15 <u>Laboratory Testing Services</u> Has the laboratory provided uninterrupted testing services, with no disruptions due to stock outs in the last year or since last assessment?	

**KEY MESSAGES**

- An effective procurement management system is one that ensures sufficient inventory is available to meet testing needs while simultaneously avoiding waste incurred from unused and expired reagents.
- An orderable amount needed to sustain testing can be calculated instead of relying on guesswork by utilizing data available to laboratory staff.
- Due to the interrelationship between the procurement and inventory management systems, errors or oversight in one will affect the other resulting in service interruptions and decreased patient care.

Can you:

- Define key terms and concepts related to calculating and forecasting supplies?
- Calculate the correct amount of supplies to order based upon a given lead time and orderable unit?

**SELF-ASSESSMENT**

For this activity, you will need:

- ☐ Worksheet 1: Urinalysis (401)
- ☐ Worksheet 2: Glucometer (402)
- ☐ Job Aid: Calculating Supplies (403)

Urinalysis⁴⁰¹

Procedure:

Routine Urinalysis with Microscopic

Number of Tests
Performed in One
Month: **(a)**

Patients: 500

Total QC: 70 (normal and abnormal controls analyzed daily during morning workstation set-up, and each time a new reagent bottle is opened)

	Item # needed to perform one procedure	Item # needed per month (<i>Reserve Quantity</i>)	Minimum Stock required for a three month lead time (<i>Reorder Level</i>)	Stock on hand (<i>physical inventory</i>)	Quantity to be ordered	Vendor's item amount	Orderable Amount (rounded UP to the nearest whole number)	Orderable Unit
	(b)	(a) x (b) = (c)	(c) x 3 = (d)	(e)	(c) + (d) - (e) = (f)	(g)	(f) / (g)	
<u>List Each Item</u>								
1 <u>collection cup</u>				1000		1000 cups/bag		bag
2 <u>cleaning towelette</u>				1600		500 packets/box		box
3 <u>urine dipstick</u>				500		100 strips/bottle		bottle
4 <u>4 x 4 gauze</u>				2000		50 pieces/bag		bag
5 <u>centrifuge tube</u>				2300		100 tubes/box		box
6 <u>plastic disposable pipette</u>				1700		300 pipettes/box		box
7 <u>slide</u>				800		100 slides/box		box
8 <u>coverslip</u>				1900		50 slips/box		box
9 <u>Normal QC</u>	10 ml			1300		200 ml/box **		box
10 <u>Abnormal QC</u>	10 ml			650		200 ml/box **		box

Box of QC material = 4 bottles/box x 50ml/bottle

Glucometer⁴⁰²

Procedure:

Glucose by Glucometer

Number of Tests
Performed in One
Month: **(a)**

Patients: 300

Total QC: 66 (low and high controls analyzed daily during phlebotomy workstation morning set-up, and each time a new reagent bottle is opened)

	Item # needed to perform one procedure	Item # needed per month (<i>Reserve Quantity</i>)	Minimum Stock required for a two month lead time (<i>Reorder Level</i>)	Stock on hand (<i>physical inventory</i>)	Quantity to be ordered	Vendor's item amount	Orderable Amount (rounded UP to the nearest whole number)	Orderable Unit
	(b)	(a) x (b) = (c)	(c) x 2 = (d)	(e)	(c) + (d) - (e) = (f)	(g)	(f) / (g)	
List Each Item								
1 lancet				400		1000 lancets/box		box
2 alcohol pad				800		100 packets/box		box
3 2x2 gauze				100		50 pieces/bag		bag
4 reagent strip				800		50 strips/bottle		bottle
5 QC Low**				75		50 tests/bottle		bottle
6 QC High**				25		50 tests/bottle		bottle

** Manufacturer's QC package insert specifies that the quantity in each bottle is sufficient for 50 tests (dispense 1 drop, wipe, test second drop)

Calculating Supplies⁴⁰³

An efficient procurement management system will provide the amount of required supplies to fulfill needs without waste due to the expiration of unused supplies.

Key Terms and Concepts:

Lead Time – time between placing an order and receiving it.

Average Usage - number of test kits, reagents or supplies used in a given time period.

Minimum Stock -amount of stock required to support testing operations until additional supplies are received.

Reorder Level - the minimum stock level at which you should reorder the item and the amount you should reorder.

Reordering Equation - Average Usage x Lead Time = Minimum Stock (Reorder Level).

