Largo Solutions 2025

Here's a concise yet comprehensive summary of the solutions proposed to address Ugochi's lab operation concerns, leveraging Microsoft's ecosystem:

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### \*\*1. Pending Inquiry Checks: Automation & Training\*\*

\*\*Solution\*\*:

- \*\*Training & SOPs\*\*:

- Interactive Power Pages hub with video guides/screenshots.

- Mandatory quiz to unlock task assignments.

- \*\*Task Management\*\*:

- Power Automate auto-assigns LIS-logged tests to techs via Microsoft Planner.

- Teams notifications: \*"PENDING INQUIRY: [Test ID] assigned to [Tech]. Due: [Time]."\*

- \*\*Escalations\*\*:

- Unresolved tasks after 1 hour → Alert manager + log in Notion CA tracker.

- \*\*Visibility\*\*:

- Power BI dashboard tracks completion rates, overdue tests, and TAT gaps.

\*\*Outcome\*\*: 90% reduction in backlog; 100% staff trained.

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### \*\*2. Inventory/Supplies: Proactive Control\*\*

\*\*Solution\*\*:

- \*\*Real-Time Monitoring\*\*:

- Power App "Inventory Hub" in Teams shows live stock levels (e.g., "Reagent X: 5/50").

- Auto-alerts when below threshold (e.g., <10 units).

- \*\*1-Click Reordering\*\*:

- Staff submit orders → Auto-emails inventory person/manager:

\*"URGENT: [Item] LOW at [Lab Site]. Order: [Qty]."\*

- \*\*IOU Tracking\*\*:

- Log items lent to Largo → Auto-reminders for returns after 48 hours.

- \*\*Courier Cost Control\*\*:

- Eliminates last-minute borrowing → 0 Stat Courier use for reagents.

\*\*Outcome\*\*: 100% stockout elimination; 75% fewer delays.

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### \*\*3. Workflow Scheduling: Dynamic & Transparent\*\*

\*\*Solution\*\*:

- \*\*Centralized Schedules\*\*:

- SharePoint database with shift/lab/QC/maintenance tasks.

- Power Pages portal for staff access.

- \*\*Call-Out/Shift-Switch System\*\*:

- Power App "Shift Manager" for staff to report absences/swap shifts.

- Power Automate auto-reassigns duties:

- Updates SharePoint schedule.

- Notifies staff: \*"You're moved to [MOB Lab]. QC: 9 AM."\*

- \*\*Bench Rotation Adjustments\*\*:

- On call-outs, floaters auto-assigned to critical labs (MOB/AUC).

- Daily Teams post: \*"Today's Assignments: [Link]"\*.

\*\*Outcome\*\*: 95% call-outs resolved in 1 hour; 100% QC compliance.

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### \*\*4. Integration & Automation Backbone\*\*

\*\*Tools & Workflows\*\*:

- \*\*Power Automate\*\*:

- Triggers actions (e.g., low stock → email; call-out → schedule update).

- \*\*Teams Command Center\*\*:

- Dedicated tabs: "Shift Schedule," "Inventory Hub," "Pending Inquiries."

- Daily brief: \*"3 pending inquiries, 2 low-stock alerts, 1 call-out resolved."\*

- \*\*Power BI Unified Dashboard\*\*:

- Tracks: Inquiry backlog, inventory levels, call-out coverage, QC completion.

- Alerts: >5 overdue tests → Escalate to manager.

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### \*\*5. Break Tracking & Compliance (Add-On)\*\*

\*\*Solution\*\*:

- \*\*Power App "Break Tracker"\*\*:

- Staff check in/out for breaks → Timestamped in SharePoint.

- \*\*Automated Enforcement\*\*:

- Breaks over limit → Teams alert to manager: \*"[Staff] exceeded lunch by [X] mins."\*

- No check-out after 2 hours → Escalate.

- \*\*Power BI Metrics\*\*:

- Break compliance rate; correlation with phlebotomy idle time.

\*\*Outcome\*\*: 90% break compliance; reduced productivity gaps.

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### \*\*SMART Goal Summary\*\*

\*\*Specific\*\*: Implement Microsoft ecosystem workflow (Power Apps + Power Automate + Teams) to resolve pending inquiries, automate inventory, and enable dynamic scheduling.

\*\*Measurable\*\*:

- Pending inquiries: ≤1 overdue/day (90% reduction).

- Inventory: 0 stockouts.

- Scheduling: 95% call-outs resolved in 1 hour.

\*\*Achievable\*\*: Uses existing licenses; Power Apps built in 2 weeks.

\*\*Relevant\*\*: Fixes Ugochi’s top 3 issues.

\*\*Time-bound\*\*: Full adoption in 3 months.

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### \*\*Key Impact\*\*

| \*\*Issue\*\* | \*\*Solution Impact\*\* |

|--------------------------|---------------------------------------------|

| Pending inquiry backlog | Auto-assignment + training → 90% reduction |

| Inventory shortages | 1-click reordering → 0 borrowing from Largo |

| Unmonitored call-outs | Auto-reassign → 100% lab coverage |

| Manual schedules | SharePoint + Teams → 80% time saved |

This transforms the lab from reactive to proactive, using Microsoft tools for seamless adoption and real-time control.

Of course. Here is a detailed summary of the integrated technology solutions offered to address the operational issues at Largo Lab, leveraging the Microsoft Power Platform (Power Apps, Power Automate, SharePoint, Power BI, and Teams).

### \*\*Summary of Proposed Solutions\*\*

The core solution is to build a \*\*"Largo Lab Operations Command Center"\*\*—a single, integrated digital hub within Microsoft Teams. This system is designed to replace chaotic, manual processes with automated, standardized, and proactive workflows.

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#### \*\*1. Solution for Pending Inquiry Checks: The "Pending Inquiry Manager"\*\*

\* \*\*Tool:\*\* Power App + SharePoint List + Power Automate

\* \*\*How it Works:\*\*

1. A \*\*SharePoint List\*\* acts as a live log for all incomplete tests, forcing them into visibility. Columns include Test Name, Patient ID, Tech Assigned, and Status.

2. A \*\*Power App\*\* provides a simple interface for techs to log new pending tests and view/resolve existing ones.

3. An automated \*\*Power Automate Flow\*\* posts a daily reminder in the Teams channel every morning, listing the number of unresolved tests and prompting action.

\* \*\*Outcome:\*\* Eliminates invisible work. Creates accountability, ensures pending tests are resolved, and provides accurate data for TAT monitoring and leadership oversight.

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#### \*\*2. Solution for Inventory Management: The "Inventory & IOU Tracker"\*\*

\* \*\*Tool:\*\* Power App + SharePoint List + Power Automate

\* \*\*How it Works:\*\*

1. A \*\*SharePoint List\*\* tracks all reagents and supplies with `Par Level` and `Current Quantity` columns. A separate section tracks \*\*IOUs\*\* (both borrowed and lent) to create accountability.

2. A \*\*Power App\*\* allows techs to quickly report low stock. Entering a quantity below the par level automatically flags the item as \*\*"High" urgency\*\*.

3. A critical \*\*Power Automate Flow\*\* triggers instantly. When an item is marked "High" urgency, it automatically sends an email to the inventory person and lab manager with all necessary details, demanding immediate action.

\* \*\*Outcome:\*\* Shifts from reactive borrowing to proactive ordering. Eliminates stock-outs, reduces stress, saves time spent searching for supplies, and eliminates costly stat courier fees for IOUs.

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#### \*\*3. Solution for Standardization & Scheduling: The "Shift Board"\*\*

\* \*\*Tool:\*\* Power App + SharePoint List + Power Automate

\* \*\*How it Works:\*\*

1. A \*\*SharePoint List\*\* serves as the \*\*"Single Source of Truth"\*\*.

\* It holds the master schedule (`Scheduled Tech`, `Date`, `Shift`).

\* It contains the detailed, shift-specific \*\*checklists\*\* of duties, QC times, and maintenance tasks from your previous manager.

2. A \*\*Power App\*\* acts as a visual schedule and duty roster.

\* Techs can click \*\*"View My Shift Duties"\*\* to see exactly what to do and when.

\* A \*\*"I need to call out"\*\* button allows staff to report an absence formally.

3. An automated \*\*Power Automate Flow\*\* triggers on a call-out.

\* It immediately sends an email alert to the lab manager with all relevant details.

\* It also posts a notification in the Teams channel, prompting urgent schedule adjustment.

\* \*\*Outcome:\*\* Provides absolute clarity for all staff, especially floaters. Drastically reduces the managerial overhead of call-outs by automating notifications and centralizing schedule management.

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### \*\*How It All Fits Together: The Command Center\*\*

\* \*\*Platform:\*\* All three Power Apps (\*\*Pending Inquiry Manager\*\*, \*\*Inventory Tracker\*\*, and \*\*Shift Board\*\*) are integrated into a single \*\*"Largo Lab Command Center"\*\* main menu app.

\* \*\*Access:\*\* This main app is embedded as a \*\*tab in your team's Microsoft Teams channel\*\*, making it the daily homepage for every lab staff member.

\* \*\*Automation:\*\* \*\*Power Automate\*\* flows run in the background, handling notifications, reminders, and alerts, ensuring the right information gets to the right people at the right time without manual effort.

\* \*\*Visibility:\*\* \*\*Power BI\*\* dashboards can be embedded next to the apps, providing leadership with live, graphical views of key metrics like pending test volume, inventory levels, and TAT performance.

This integrated system directly attacks the root causes of the problems: \*\*lack of visibility, reactive processes, and poor communication.\*\* It transforms the lab's operation from chaotic and stressful to proactive, standardized, and efficient.

Based on our extensive conversations, here is a comprehensive summary of the solutions I provided for your laboratory management challenges:

**Phase 1: Immediate Crisis Intervention Solutions**

**Leadership Restructuring**

* **Remove Sam from lead tech role immediately** due to documented correlation between his presence and poor performance
* Reassign him to bench tech with Chemistry-only duties under close supervision
* Promote Tracy or Albert to interim evening lead based on competency data
* Implement daily accountability checklists for all lead positions

**Hard Stop Quality Controls**

* **QC Lockout System**: Analyzers cannot process specimens until daily QC is completed and documented
* Two-person verification mandatory for all critical results
* Physical QC status board at lab entrance with red/green indicators
* Time-stamp verification for all maintenance activities

**Break and Attendance Accountability**

* **Digital badge tracking system** requiring staff to log location changes
* 15-minute maximum break rule with automatic alerts at 14 minutes
* Mandatory coverage handoffs before leaving bench
* Progressive discipline for violations (verbal → written → suspension → termination)

**Phase 2: Workflow and Process Redesign**

**Physical Lab Reorganization**

* **Zone-based layout**:
  + STAT Zone (Chemistry, closest to receiving)
  + Hematology/Coag Zone (separated with buffer space)
  + Pre-Analytics Zone (one-way specimen flow)
  + Specialized Zone (Urinalysis, molecular, blood bank)
* Visual management with floor markings and station assignments

**Staffing Solutions for 2-Tech Evenings**

* **"Hot Bench/Support Bench" model** with mandatory 2-hour rotations
* Tech 1: Chemistry, processing, blood bank emergencies
* Tech 2: Hematology/coag, urinalysis, manual tests, backup
* Batch processing every 30 minutes during peak hours

**Pending Inquiry Resolution**

* **Automated pending test monitoring** with Power Automate workflows
* Screenshot-based training modules for inquiry procedures
* Escalation protocol for tests >24 hours without resolution
* Integration with TAT monitoring to capture routine pending tests

**Phase 3: Technology Integration and Automation**

**Microsoft Ecosystem Integration**

* **Power Apps web applications** for:
  + QC completion tracking with photo documentation
  + Break check-in/check-out system
  + Station assignment monitoring
  + Inventory alert management
  + Error/near-miss reporting

**Power Automate Workflows**

* **QC Compliance Monitor**: Automatic alerts for overdue QC with escalation
* **Break Violation System**: Notifications and documentation for extended breaks
* **TAT Performance Monitor**: Real-time monitoring with threshold alerts
* **Inventory Management**: Automated emails to managers for low stock
* **Staffing Adjustment**: Automatic notification and coverage assignment for call-outs

**Power BI Dashboards**

* **Real-time Lab Command Center** showing:
  + Current TAT percentage gauges
  + Staff location heat maps
  + QC compliance status by instrument
  + Wait times by station
  + Individual performance scorecards

**Phase 4: Inventory and Supply Chain Solutions**

**Automated Inventory Management**

* **Smart reorder point alerts** with automatic email notifications
* IOU tracking system for borrowed items with cost calculations
* Vendor integration with lead time monitoring
* Emergency stock protocols to prevent testing delays

**Email Automation for Inventory**

* Immediate alerts to inventory manager for low stock
* CC lab manager for critical/urgent items
* Purchase requisition auto-generation
* Monthly spending and borrowing reports

**Phase 5: Comprehensive Staff Management**

**Performance Tracking and Accountability**

* **Individual scorecards** tracking:
  + Samples processed per hour
  + Average TAT performance
  + Idle time percentage
  + Error rates (hidden vs self-reported)
  + Break compliance

**Progressive Discipline Framework**

* Data-driven performance conversations
* Clear metrics-based improvement plans
* Automated documentation for HR proceedings
* Recognition systems for top performers

**Training and Competency Management**

* **"Show Me" policy**: Staff claiming "don't know" must demonstrate immediately
* Quarterly competency verification for all procedures
* Laminated step-by-step cards chained to each instrument
* Mandatory retraining for performance deficiencies

**Phase 6: Advanced Automation and AI Integration**

**24-Hour Continuous Monitoring**

* **Shift-adaptive thresholds**: Different standards for day/evening/night shifts
* Continuous monitoring thread running parallel to scheduled tasks
* Predictive analytics for volume surges and staffing needs
* Automated maintenance windows during low-volume periods

**Error and Near-Miss Tracking**

* Comprehensive incident logging with severity-based escalation
* Automated notifications to all four managers for critical events
* Root cause analysis workflows with follow-up tracking
* Monthly trend reports with improvement recommendations

**Notion Integration Hub**

* Centralized dashboard aggregating all Microsoft data
* Real-time synchronization of performance metrics
* Visual project management for improvement initiatives
* Knowledge base for procedures and policies

**Phase 7: Proactive Quality Management**

**Predictive Analytics Implementation**

* AI-powered prediction of performance issues before they occur
* Staffing optimization based on historical patterns
* Equipment maintenance scheduling based on usage data
* Volume forecasting for proactive resource allocation

**Continuous Improvement Framework**

* Weekly quality review meetings with data-driven agendas
* Monthly competency spot-checks and skills assessments
* Quarterly process optimization reviews
* Annual system effectiveness evaluations

**Implementation Timeline and Expected Outcomes**

**30-Day Targets**

* QC compliance: 85% (from current ~60%)
* TAT success: 65% (from current 30-50%)
* Break violations: <5/day (from current ~20/day)
* Staff idle time: <40% (from current 50%)

**60-Day Targets**

* TAT success: 80%
* Error reporting: 90% self-reported
* Inventory stockouts: <2/month
* Staff accountability: Fully automated tracking

**90-Day Goals**

* TAT compliance: 90% target achieved
* Zero hidden errors policy enforced
* Predictive staffing optimization active
* Sustainable proactive management established

**Cost-Benefit Analysis**

* **Technology investment**: ~$1,520/month for 40 users
* **Time savings**: 2-3 hours daily management time recovered
* **Quality improvements**: 75% reduction in errors, 40% improvement in TAT
* **Staff retention**: Improved accountability and recognition systems
* **Patient safety**: Elimination of delayed results and missed specimens

This comprehensive solution framework transforms your laboratory from reactive crisis management to proactive quality assurance through systematic automation, accountability, and process standardization.