



MASS DIAGNOSTICS • SALES ACADEMY

# Dry Lab Operations Basics

Standard Operating Procedures — From Sample Receiving to Results Delivery

*Understanding the full sample journey behind every result you sell*

# What We'll Cover Today



## **The Sample Journey**

A single end-to-end process flow, stage by stage



## **Nine Operational Stages**

From receiving the customer to delivering results



## **Quality & Compliance**

Chain of custody, rejection criteria, confidentiality



## **Common Errors**

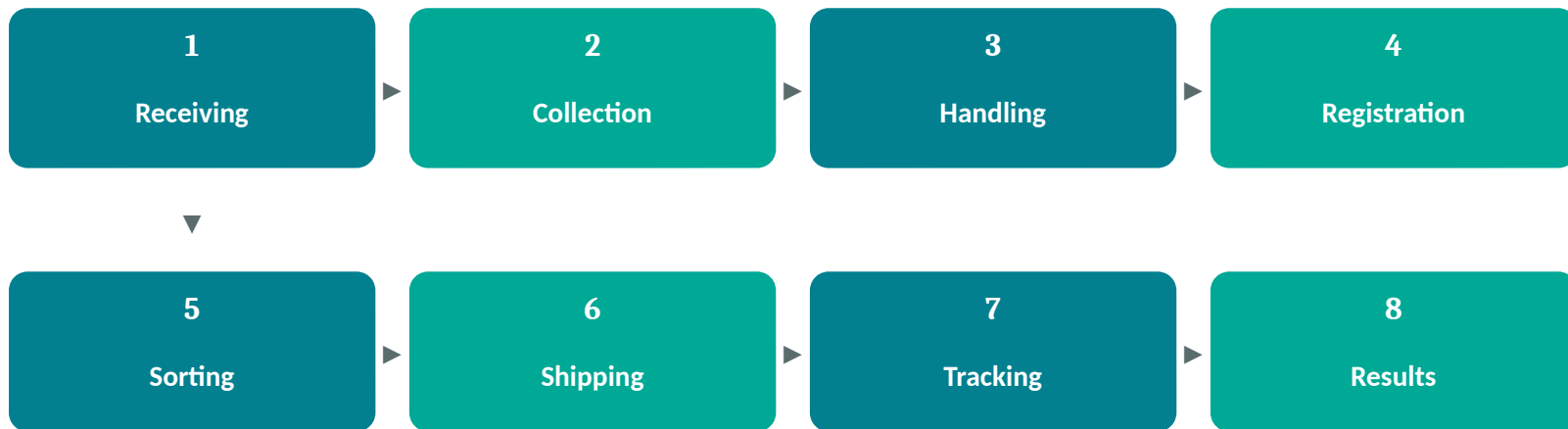
What goes wrong and how to prevent it



## **Roles & Responsibilities**

Who owns each stage of the process

# The Sample Journey — End to End



*Every stage hands off to the next through a documented, verified checkpoint.*



# Receiving & Greeting the Customer

*Create a professional first touchpoint and confirm the sample/order is ready for processing.*

- 1 Greet the customer warmly and confirm appointment or referral details.
- 2 Verify patient identity using two identifiers (full name + date of birth or ID).
- 3 Confirm the test requisition form is complete and signed by the ordering physician.
- 4 Explain the process, expected turnaround time, and next steps to the customer.
- 5 Direct the customer to the collection area, or confirm courier pickup arrangements.

## KEY CONTROL POINT

No sample is accepted for processing without a complete, signed requisition form.

# Sample Collection Requirements

| Test Type         | Sample Type                 | Volume / Tube  | Special Note                       |
|-------------------|-----------------------------|----------------|------------------------------------|
| WES / NGS panels  | Whole blood (EDTA)          | 3–5 mL         | Avoid hemolysis                    |
| NIPT              | Maternal blood (cfDNA tube) | 10 mL          | Draw after 10 weeks gestation      |
| Carrier screening | Buccal swab or blood        | 2 swabs / 3 mL | Swabs are room-temp stable         |
| Postnatal panel   | Whole blood (EDTA)          | 3–5 mL         | Refrigerate if shipment is delayed |

*Signed informed consent is required before collection for every genetic test.*



# Sample Handling & Preservation

*Protect sample integrity from the moment of collection through lab entry.*

- 1 Label every tube immediately at the point of collection — never pre-label.
- 2 Match the label to the requisition form and the patient's ID/wristband.
- 3 Store at the required condition (room temperature / 2–8°C / frozen) per test type.
- 4 Record the exact time of collection and note any handling deviation immediately.
- 5 Maintain unbroken chain-of-custody documentation from this point forward.

## KEY CONTROL POINT

An unlabeled or mismatched sample is rejected — no exceptions, no reprocessing.



# Registration & Data Entry

*Create the accurate digital record that drives every downstream step.*

- 1 Enter patient demographics and the test order into the LIS.
- 2 Assign a unique barcode / accession number to the sample.
- 3 Cross-check entered data against the requisition form (second-person verification).
- 4 Flag any missing clinical information (ICD code, physician details) before proceeding.
- 5 Confirm billing and insurance details are attached to the record.

## KEY CONTROL POINT

Double-entry verification is required before a sample can move to sorting.



# Sorting & Batching

*Route each sample efficiently to the correct processing stream.*

- 1 Sort samples by test type — in-house processing vs. send-out.
- 2 Separate STAT / urgent cases from routine batches.
- 3 Group send-out samples by destination reference lab.
- 4 Verify the batch manifest matches the physical sample count exactly.
- 5 Stage completed batches in the designated area awaiting shipment or processing.

## KEY CONTROL POINT

Every batch is reconciled against its manifest before it leaves sorting.



# Shipping & Logistics

*Move samples to their destination without compromising integrity.*

- 1 Package according to sample class — cold chain, ambient, or frozen.
- 2 Include temperature monitors/loggers on all cold-chain shipments.
- 3 Complete shipping documentation: waybill, packing list, and customs forms if international.
- 4 Book a courier with a tracked, time-defined service level.
- 5 Confirm pickup and record the tracking number against every sample ID in the LIS.

## KEY CONTROL POINT

No shipment leaves the facility without a tracking number logged for every sample.



# Tracking & Status Updates

*Maintain visibility of every sample and keep customers informed proactively.*

- 1 Update sample status at each milestone: received, in transit, at lab, in process, resulted.
- 2 Monitor courier tracking daily for all in-transit shipments.
- 3 Proactively notify the sales or customer contact of any delay.
- 4 Escalate samples approaching a TAT breach to the lab manager immediately.
- 5 Log all customer inquiries and responses in the CRM / LIS.

## KEY CONTROL POINT

A sample with no status change for 24+ hours is auto-flagged for review.



# Results Collection from Partner Labs

*Receive results accurately and verify them before they move to the customer.*

- 1 Retrieve results through the secure partner portal or encrypted transfer only.
- 2 Match each report to its accession number and patient record.
- 3 Perform a completeness check — all requested panels or genes are present.
- 4 Flag discrepancies or incomplete reports back to the reference lab immediately.
- 5 Log the result-received date against the committed turnaround time.

## KEY CONTROL POINT

A report is never released internally without accession-number matching.



# Results Handling & Delivery to Customer

*Deliver accurate results securely and support the customer in understanding them.*

- 1 Route the report to the assigned genetic counselor or medical team for review if required.
- 2 Deliver only through a secure, confidential channel — never open email or chat apps.
- 3 Confirm receipt directly with the ordering physician or customer.
- 4 Offer counseling or consultation support for complex or positive results.
- 5 Archive the final report in the patient record per the retention policy.

## KEY CONTROL POINT

Confidentiality is never compromised for speed.

# Quality & Compliance Checkpoints



## Chain of Custody

Every handoff — collection to results — is documented, timestamped, and signed.



## Sample Identification

Barcode and two-identifier checks happen at every stage transition, not just once.



## Data Integrity

Second-person verification on entry; no single point of unchecked data entry.



## Confidentiality & Consent

Patient data and results are shared only through secure, consented channels.

# Sample Rejection Criteria

| Reason for Rejection          | Required Action                                   |
|-------------------------------|---------------------------------------------------|
| Unlabeled or mismatched label | Reject — request sample recollection              |
| Insufficient sample volume    | Reject — request sample recollection              |
| Hemolyzed or clotted sample   | Reject — request sample recollection              |
| Expired collection tube       | Reject — request sample recollection              |
| Missing or incomplete consent | Hold — obtain completed consent before proceeding |
| Wrong tube type for the test  | Reject — request recollection in correct tube     |

*When in doubt, reject and recollect — a rejected sample costs less than a wrong result.*

# Common Errors & How to Avoid Them

| Common Error                       | Prevention                                                      |
|------------------------------------|-----------------------------------------------------------------|
| Mislabeling at collection          | Label the tube in front of the patient, before leaving the room |
| Delayed data entry                 | Register the sample same-day, before shipment                   |
| Missing chain-of-custody signature | Built-in checklist at every handoff point                       |
| Temperature excursion in transit   | Use validated packaging plus a temperature logger               |
| Incomplete requisition sent onward | Front-desk checklist before the customer leaves                 |

# Roles & Responsibilities — Quick Reference

| Stage                       | Primary Owner                    |
|-----------------------------|----------------------------------|
| Receiving & Collection      | Front Desk / Phlebotomist        |
| Handling & Registration     | Lab Registration Officer         |
| Sorting & Shipping          | Logistics Coordinator            |
| Tracking & Customer Updates | Customer Service / Sales Liaison |
| Results Handling & Delivery | Lab Director / Genetic Counselor |

# Summary Checklist



Verify patient identity twice — at receiving and again at registration.



Label every sample immediately, in front of the patient.



Keep chain-of-custody documentation unbroken at every handoff.



Reconcile every batch against its manifest before it ships.



Track every shipment until results are confirmed received.



Deliver results only through secure, confidential channels.



# Thank You

Questions & Discussion — MASS Diagnostics Sales Academy