DEDER GENERAL HOSPITAL

Standard Operating Procedure (SOP) for

Sustaining Improvement in Diagnostic Screening for Non-Communicable Disease (NCD) Complications

BY: HSQU

June 2025

Deder, Eastern Ethiopia

SMT SOP APPROVAL

TITLE	**SOP for Diagnostic Screening for Non-Communicable Disease (NCD) Complications** **Version: *DGH-SOP-OPD-NCD-011***			
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	Approved Date: June 2025			
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REVIEW	**Review date: June 2026**			

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1.0 PURPOSE

To establish a standardized, multidisciplinary process for the routine screening of complications in patients with Non-Communicable Diseases (NCDs) such as hypertension and diabetes at Deder General Hospital, to sustain a screening compliance rate of >80%, enable early detection and intervention, reduce the incidence of advanced complications, and improve patient satisfaction.

2.0 SCOPE

This SOP applies to all healthcare providers involved in the care of NCD patients in the Outpatient Department (OPD) at Deder General Hospital, including but not limited to: OPD physicians, nurses, laboratory technicians, pharmacy staff, the OPD Director, and the quality improvement team.

3.0 DEFINITIONS

- **NCD Complication Screening:** The systematic use of evidence-based diagnostic tests (e.g., urine albumin-to-creatinine ratio for diabetics, fundoscopy for hypertensive retinopathy, serum creatinine for renal function) to detect early signs of organ damage in patients with chronic conditions like diabetes and hypertension.
- **Screening Compliance Rate:** The percentage of eligible NCD patients who receive all recommended complication screenings during their scheduled clinic visit.
- **Dedicated OPD Laboratory:** A laboratory physically located within or adjacent to the OPD, staffed and equipped to perform essential NCD-related diagnostic tests on the same day as the patient's clinic visit.
- **Eligible Patient:** A patient with a confirmed diagnosis of diabetes or hypertension who is due for routine complication screening based on clinical guidelines (e.g., annually for most tests).

4.0 RESPONSIBILITIES

- **OPD Director:** Ultimately responsible for protocol adherence and overall OPD performance. Leads monthly performance reviews and champions the NCD screening process.
- **OPD Physicians & Nurses:** Responsible for identifying eligible patients, ordering appropriate screening tests as per the protocol, and reviewing results during the patient consultation. They ensure the screening checklist is completed for each patient.
- **Laboratory Head & Technicians (OPD Lab):** Responsible for the daily operation of the dedicated OPD lab, performing tests accurately and promptly, maintaining equipment, and reporting results to the clinician within the same shift.
- **Pharmacy & Procurement Unit:** Responsible for ensuring a consistent, uninterrupted supply of essential diagnostic reagents and consumables for the OPD lab through proactive inventory management and timely ordering.
- **Quality Directorate (QI Team):** Conducts monthly audits of patient charts, compiles performance data, facilitates feedback sessions, and monitors balancing measures (e.g., % of patients presenting with advanced complications, patient satisfaction).

5.0 PROCEDURE

5.1 Initial Patient Assessment & Screening Plan (At Every NCD Visit)

1. During the patient's registration and vital signs check, the **OPD nurse** identifies if the patient is due for complication screening based on their diagnosis and last screening date.
2. The **OPD physician** reviews the patient's history and, using the **NCD Complication Screening Checklist** (integrated into the patient chart), orders all appropriate tests for that visit (e.g., UACR, eGFR, fundoscopy, ECG).

3. The physician or nurse explains the purpose of the tests to the patient and obtains consent.
4. The ordered tests are documented in the patient's chart and communicated to the OPD lab via a requisition slip or electronic order.

5.2 Daily Operation of the Dedicated OPD Laboratory

1. The **OPD Lab** opens at the start of OPD hours and remains operational throughout the clinic day.
2. **Lab Technicians** receive requisitions, collect specimens from patients (or receive them from nurses), and perform tests using calibrated equipment and validated procedures.
3. Results are recorded in the **OPD Lab Register** and communicated back to the requesting clinician **within the same shift** (ideally within 2 hours).
4. The **Lab Head** ensures daily equipment calibration, basic maintenance, and adherence to safety protocols.

5.3 Bi-Weekly Stock Audit and Reagent Replenishment

1. Every two weeks, the **Lab Storekeeper** conducts a physical count of all essential NCD diagnostic reagents and consumables (e.g., test strips, dipsticks, chemistry reagents).
2. Stock levels are recorded in the **Bi-Weekly Stock Audit Log**. Any item falling below the minimum threshold (set at 2 weeks' supply) is flagged.
3. The **Procurement Unit** is immediately notified of any shortages, and an emergency order is placed to ensure no stock-outs occur.
4. The **Pharmacy Unit** coordinates with procurement and ensures timely delivery and storage of received items.

5.4 Monthly Chart Audit and Team Feedback Session

1. The **QI Team** audits a random sample of NCD patient charts (e.g., 20-30 charts) from the past month using the **NCD Screening Process Audit Tool** (Annex 2). The audit checks for completeness of the screening checklist and documentation of results.
2. A **monthly feedback session** is held with all OPD and lab staff involved in NCD care to present audit findings, discuss systemic barriers (e.g., delays in result reporting, specific test unavailability), share best practices, and celebrate successes. Minutes are recorded in the **Audit Log** (Annex 3).

5.5 Data Monitoring & Performance Review (Monthly)

1. The **QI Team** compiles data from the monthly audits to calculate the overall NCD screening compliance rate and the rate of patients presenting with advanced complications.
2. The **OPD Director** leads a Monthly Performance Review Meeting with key stakeholders (OPD staff, Lab Head, Pharmacy, QI Team) to:
    - Review the monthly screening compliance rate and trend against the >80% target.
    - Review the balancing measure (% of patients with advanced complications) to ensure screening is having the desired clinical impact.
    - Discuss resource challenges (e.g., equipment breakdown, staffing) and plan corrective actions.

6.0 DOCUMENTATION

- NCD Complication Screening Checklist (integrated into patient chart)
- OPD Lab Daily Register
- Bi-Weekly Stock Audit Log
- NCD Screening Process Audit Tool (Annex 2)
- Monthly Audit & Feedback Log (Annex 3)
- Monthly QI Monitoring Report (Annex 4)
- Monthly Performance Review Meeting Minutes

7.0 REVIEW OF SOP

This SOP shall be reviewed **annually** by the OPD Director, Laboratory Head, and Quality Directorate to ensure its ongoing effectiveness, relevance, and alignment with updated clinical guidelines for NCD management.

ANNEX

Sustainability Checklist for NCD Screening QI Project

Domain	Checklist Item	Status (Yes/No/Partial)
Leadership & Commitment	NCD screening compliance is a standing agenda item in OPD staff meetings.	
Process Adherence	Standardized NCD screening checklist is used for 100% of eligible patients.	
Process Adherence	Dedicated OPD lab is operational during all OPD hours.	
Resources	Essential diagnostic reagents are available without interruption (stock-out rate <5%).	
Resources	Equipment in the OPD lab is calibrated and maintained monthly.	
Monitoring & Evaluation	Monthly chart audits are conducted and documented.	
Monitoring & Evaluation	Monthly compliance and complication data are reviewed by the QI team.	
Patient Outcomes	NCD screening compliance rate is sustained at >80%.	
Balancing Measure	% of patients presenting with advanced NCD complications is monitored and shows a downward trend.	

NCD Screening Process Audit Tool

Month of: _____ **Auditor:** _____ **Sample Size:** ____ NCD patient charts

Patient ID	Screening Checklist Used? (Y/N)	All Tests Ordered? (Y/N)	Results Documented in Chart? (Y/N)	Results Reviewed w/ Patient? (Y/N)	Overall Compliant? (Y/N)
% Compliance	__%	__%	__%	__%	__%

Monthly Audit & Feedback Log

Date of Feedback Session:_____ **Facilitator:** _____**Attendees (Roles):** _____

Summary of Monthly Audit Findings (from Annex 2):

- **Strengths:**
  - e.g., High compliance with checklist usage.
  - e.g., Excellent turnaround time for lab results.
- **Areas for Improvement:**
  - e.g., Inconsistent documentation of result review with patient.
  - e.g., Delays in restocking specific reagent (specify).

Action Plan:

ACTION ITEM	RESPONSIBLE PERSON	DEADLINE
e.g., Add "Results Reviewed" checkbox to checklist.	OPD Director / QI Officer	DD/MM/YYYY
e.g., Establish safety stock level for [Specific Reagent].	Pharmacy Head	DD/MM/YYYY

QI Team Monitoring Tool

Department: OPD-NCD Clinic **Project:** Sustaining NCD Complication Screening Compliance **Reporting Month:** _____ **Prepared by:** _____ **Reviewed by:** _____

1. Key Performance Indicators (KPIs)

INDICATOR	DEFINITION	TARGET	CURRENT MONTH	STATUS
NCD Screening Compliance Rate	% of eligible NCD patients receiving all recommended complication screenings.	>80%	___ %	
OPD Lab Utilization Rate	% of scheduled OPD days the dedicated lab was fully operational.	>95%	___ %	
Reagent Stock-Out Rate	% of days in the month where ≥1 essential NCD reagent was unavailable.	<5%	___ %	
% Patients w/ Advanced Complications	% of new NCD patients presenting with stage 3+ CKD, proliferative retinopathy, etc.	Downward Trend	___ %	

2. Process Monitoring

ACTIVITY	PLANNED FREQUENCY	ACTUAL CONDUCTED	% ACHIEVED	REMARKS
Bi-Weekly Stock Audits	2 per month	___	___ %	
Monthly Chart Audits	1 per month	___	___ %	
Monthly Feedback Sessions	1 per month	___	___ %	
Monthly Review Meetings	1 per month	___	___ %	

3. Challenges Identified

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4. Corrective Actions & Recommendations

ISSUE IDENTIFIED	CORRECTIVE ACTION	RESPONSIBLE PERSON	TIMELINE	STATUS

e.g., Low compliance with documenting patient review of results.	e.g., Modify checklist and provide 10-min refresher training.	OPD Head Nurse	DD/MM/YYYY	
e.g., Frequent stock-outs of urine dipsticks.	e.g., Increase safety stock level and pre-order with lead time.	Procurement Officer	DD/MM/YYYY	

5. Summary & Way Forward

Overall Compliance Status This Month: _____

Next Steps / Priority Actions:

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