

# **DEDER GENERAL HOSPITAL**

## **OUTPATIENT DEPARTMENT**

### **Management of Urinary Tract Infection (UTI)**

### **STG Utilization Monitoring Report**

By: DGH Quality Unit

Report Period: 4th Quarter of 2017 E.C



**Deder, Ethiopia**  
**JULY 2017 E.C**

---

## Table of Contents

### Contents

1. Purpose .....	2
2. Implementation Status of Previous Audit Action Plan (Summary) .....	2
3. Introduction .....	2
4. Aim .....	3
5. Objectives .....	3
6. Methodology .....	3
7. Result .....	3
8. Discussion .....	5
9. Recommendations .....	7
10. Detailed Review of Previous Action Plan Implementation .....	7
11. References .....	8

## 1. Purpose

The purpose of this report is to assess the extent of adherence to the Ethiopian National Standard Treatment Guidelines (STG) in the management of urinary tract infections (UTIs) within the outpatient department of Deder General Hospital. This is in line with efforts to ensure high-quality, standardized, and evidence-based patient care across all clinical encounters.

## 2. Implementation Status of Previous Audit Action Plan (Summary)

Action	Responsible Person/Team	Status
Avail use of urine dipsticks and culture tests	Laboratory Head & OPD Director	<input checked="" type="checkbox"/> Completed
Develop patient education materials and integrate counseling	Health Literacy Unit Focal Person	<input checked="" type="checkbox"/> Completed
Establish feedback mechanism on culture-based antibiotic adjustment	Pharmacy Head	<input checked="" type="checkbox"/> Completed
Implement a follow-up tracking system	OPD Director	<input type="checkbox"/> In Progress
Monthly audits and performance feedback	QI Officer & OPD Director	<input checked="" type="checkbox"/> Completed

## 3. Introduction

Standard Treatment Guidelines (STGs) are crucial tools for ensuring clinical decisions are evidence-based, safe, and standardized. They help improve patient outcomes, reduce the misuse of medications, and establish consistent practices among healthcare professionals. In the context of urinary tract infections (UTIs), the proper application of STGs facilitates accurate diagnosis, appropriate antibiotic selection, patient education, and prevention of complications.

This report outlines the findings of the 4th quarter STG utilization monitoring conducted by the quality unit of Deder General Hospital, focusing on the evaluation of compliance with UTI management protocols.

---

## 4. Aim

To monitor and evaluate the implementation of Standard Treatment Guidelines (STGs) in the management of urinary tract infections, ensuring adherence to evidence-based clinical practices and identifying areas for improvement in the quality of care.

---

## 5. Objectives

- To assess the level of compliance with STG standards for UTI diagnosis and treatment.
  - To evaluate the appropriateness of documentation, diagnosis, antibiotic use, and follow-up.
  - To identify existing barriers to adherence and recommend corrective actions for enhanced utilization.
- 

## 6. Methodology

- **Study Period:** 4<sup>th</sup> quarter 2017EC
  - **Study Design:** Retrospective clinical audit
  - **Sample Size:** 10 patient charts with documented diagnosis of UTI
  - **Tool Used:** Structured checklist based on Ethiopian STG
  - **Data Collection:** Extracted from patient records and EMR
  - **Analysis:** Compliance rates were calculated for each criterion and overall
- 

## 7. Result

**Overall STG Compliance Rate: 87.5%**

**(105 out of 120 possible indicators)**

**Figure 1: STG Utilization Performance (Visual Summary)**

- Compliant: 105  
 Non-Compliant: 15
- 

**Table 1: Criteria and Standards Evaluated**

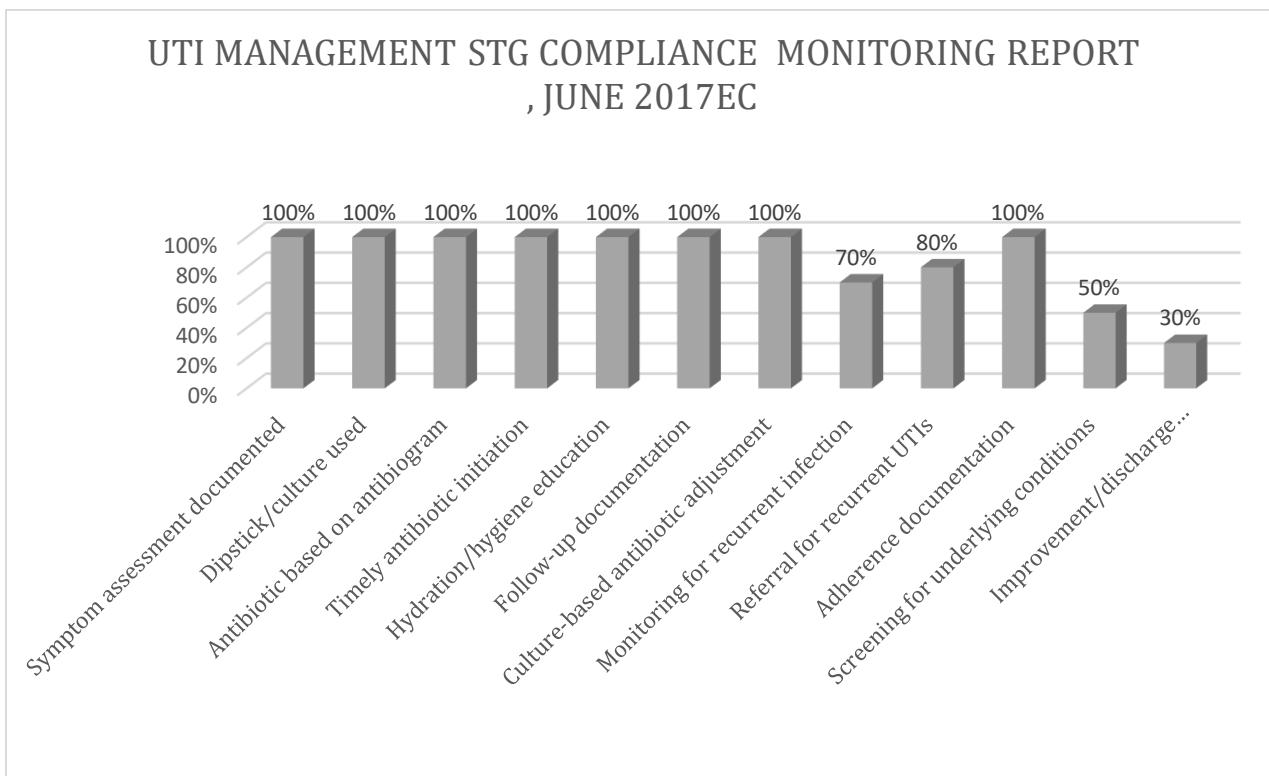
S.No	Standard Indicator
1	Documentation of symptom assessment (dysuria, frequency, urgency)
2	Use of urine dipstick or culture for diagnosis
3	Initial antibiotic choice based on local antibiogram
4	Timely administration of first antibiotic dose
5	Patient education on hydration and hygiene practices
6	Documentation of urinary symptoms during follow-up
7	Adjustment of antibiotic therapy based on culture results
8	Monitoring for recurrent infection or pyelonephritis
9	Referral for urological evaluation if recurrent UTIs occur
10	Documentation of patient adherence to the prescribed treatment
11	Screening for underlying health conditions (e.g., diabetes, immunosuppression)
12	Documentation of patient improvement or discharge

**Table 2: Performance Summary of STG Utilization for UTI - 4th Quarter**

#	Indicator	YES	NO	Compliance (%)
1	Symptom assessment documented	10	0	100%
2	Dipstick/culture used	10	0	100%
3	Antibiotic based on antibiogram	10	0	100%
4	Timely antibiotic initiation	10	0	100%
5	Hydration/hygiene education	10	0	100%
6	Follow-up documentation	10	0	100%
7	Culture-based antibiotic adjustment	10	0	100%
8	Monitoring for recurrent infection	7	3	70%
9	Referral for recurrent UTIs	8	2	80%
10	Adherence documentation	10	0	100%
11	Screening for underlying conditions	5	5	50%
12	Improvement/discharge documentation	3	7	30%

---

## GRAPH : UTI MANAGEMENT STG COMPLIANCE MONITORING REPORT , JUNE 2017EC



## 8. Discussion

Certainly! Below is an enhanced and detailed version of the **Discussion** section, specifically tailored for the **4th Quarter STG Utilization Monitoring Report on UTI management at Deder General Hospital:**

## 8. Discussion

The findings of the 4th Quarter show encouraging progress in the overall implementation of Standard Treatment Guidelines (STGs) for urinary tract infection (UTI) management at Deder General Hospital. The overall compliance rate reached **87.5% (105 out of 120 indicators met)**, an improvement from the **80%** seen in the 3rd Quarter.

### Strengths Observed

The audit revealed **100% compliance** in seven critical clinical domains, including:

- **Symptom assessment**
- **Use of urine dipstick or culture**
- **Antibiotic selection based on antibiogram**
- **Timely initiation of antibiotics**
- **Patient education**
- **Documentation during follow-up**
- **Adjustment of therapy based on culture results**

These results indicate that clinicians are highly responsive to diagnostic and therapeutic protocols. This level of compliance demonstrates the **positive impact of prior interventions**, such as:

- Targeted training conducted by the QI and clinical leads,
- Development of standardized patient education materials,
- Introduction of routine EMR audits,
- Performance feedback loops between pharmacy and clinical teams.

The **training on timely antibiotic administration** and **patient education programs** particularly contributed to the consistent and safe treatment of UTIs. The complete compliance in these areas indicates that the foundational aspects of care—accurate diagnosis, appropriate treatment, and follow-up—are being implemented effectively.

## Partial Compliance Areas

Some areas, however, continue to show room for improvement. These include:

- **Monitoring for recurrent infection or pyelonephritis (70%)**  
Although partially addressed by clinical teams, this area appears to suffer from the **lack of a fully operational follow-up tracking system**, which is still in the implementation phase. Clinicians may also be under-documenting this assessment, or follow-up visits may not be systematically tracked in the EMR.
- **Referral for recurrent UTIs (80%)**  
Despite acceptable compliance, **two patients did not have documented referrals**, although clinical notes may have implied ongoing management. This indicates the need for better documentation practices and reinforcing when urological referral is warranted based on recurrence frequency or treatment failure.

## . Low Compliance Areas

Two indicators stood out with **notably low compliance**:

- **Screening for underlying health conditions such as diabetes (50%)**  
This gap suggests that UTIs are still being treated largely as isolated conditions without adequate investigation into predisposing systemic factors such as **diabetes mellitus**,

**renal anomalies, or immunosuppressive states.** This can lead to recurrent infections and suboptimal outcomes. Training and EMR prompts may be needed to integrate this into standard workups.

- **Documentation of patient improvement or discharge status (30%)**

Only **3 out of 10 charts** included explicit notes regarding symptom resolution or discharge planning. This is a critical weakness as it limits continuity of care and fails to close the clinical care loop. A possible root cause is **lack of standard discharge documentation templates** or **EMR workflows** that prompt such entries. Furthermore, in high-volume OPD settings, discharge notes may be unintentionally skipped when time is limited.

While most actions from the **previous quarter's improvement plan (JULY 2017 E.C)** were fully implemented, the **development and formal distribution of an updated local antibiogram** remains **incomplete**. This is a **significant clinical risk**, as it could lead to future variability in antibiotic prescribing. Even though clinicians appear to follow good empirical practice, the absence of a formalized and updated guide undermines the standardization effort. Pharmacy and laboratory leadership must expedite this action to reinforce sustainable antibiotic stewardship.

The **4th Quarter UTI STG audit reflects solid clinical performance** and successful follow-through on most previous interventions. Core clinical practices are being followed consistently. However, **documentation gaps, comorbidity screening, and referral patterns** still need targeted attention. To move from good to excellent performance, the facility should now shift focus from just treatment to **comprehensive case management, long-term prevention, and structured discharge planning**.

The audit also emphasizes the importance of maintaining momentum on quality improvement initiatives and ensuring that **clinical guidelines are not only known—but systematically embedded** in daily practice through EMR support, ongoing mentorship, and accountability.

---

## 9. Recommendations

#	Recommendation
1	Finalize and integrate follow-up tracking into EMR system
2	Develop and enforce use of standard discharge summary templates
3	Reinforce screening for diabetes and other chronic illnesses
4	Provide refresher training on recurrent UTI protocols and urology referral
5	Sustain monthly audit-feedback cycles to maintain high compliance

---

## 10. Detailed Review of Previous Action Plan Implementation

**Table 3: Performance Improvement Plan**

S.No	Area to Improve	Action	Responsible Body	Timeline
1	Timely administration of antibiotics	Conduct training sessions	QI Unit	Always
2	Initial antibiotic based on antibiogram	Distribute updated local antibiogram	Pharmacy & Laboratory Departments	ASAP
3	Patient education	Standardized materials & workshops	Nursing Director & Health Literacy	completed
4	Documentation of urinary symptoms	Audit and feedback system	Department Heads & EMR Team	Ongoing

**Table 4: Implementation Status of Action Plan**

S.No	Action Area	Status	Details
1	Training on timely antibiotic administration	✓ Completed	Conducted in April. Full compliance (10/10) achieved in this quarter.
2	Dissemination of updated antibiogram	✗ Not Done	Clinicians perform well but without access to official local guidance.
3	Patient education program	✓ Completed	100% compliance; brochures and staff training completed.
4	EMR documentation audits	✓ Completed	Audits implemented, 100% documentation seen.

## 11. References

1. Ethiopian Ministry of Health. (2021). *National Standard Treatment Guidelines for General Hospitals*. Addis Ababa: EPHI.
2. World Health Organization. (2017). *UTI Diagnosis and Treatment Guidelines*. Geneva: WHO.
3. American College of Gastroenterology. (2022). *UTI Clinical Guidelines*. ACG.
4. Fashner J., Gitu A. (2015). *Diagnosis and Treatment of UTIs*. American Family Physician.
5. Ethiopian Food and Drug Authority (2020). *Guidance on Rational Use of Antimicrobials*. Addis Ababa: EFDA.