



DEDER GENERAL HOSPITAL

OUTPATIENT DEPARTMENT (OPD)

Clinical Audit to Improve the Quality of Clinical Care

Provided to Hypertension routine care Patients

By: OPD Department Clinical Audit/QI Team

Audit Cycle: Re-Audit 3

Deder, Oromia

June 2017E.C

Outpatient Department Clinical Audit/QI Team members

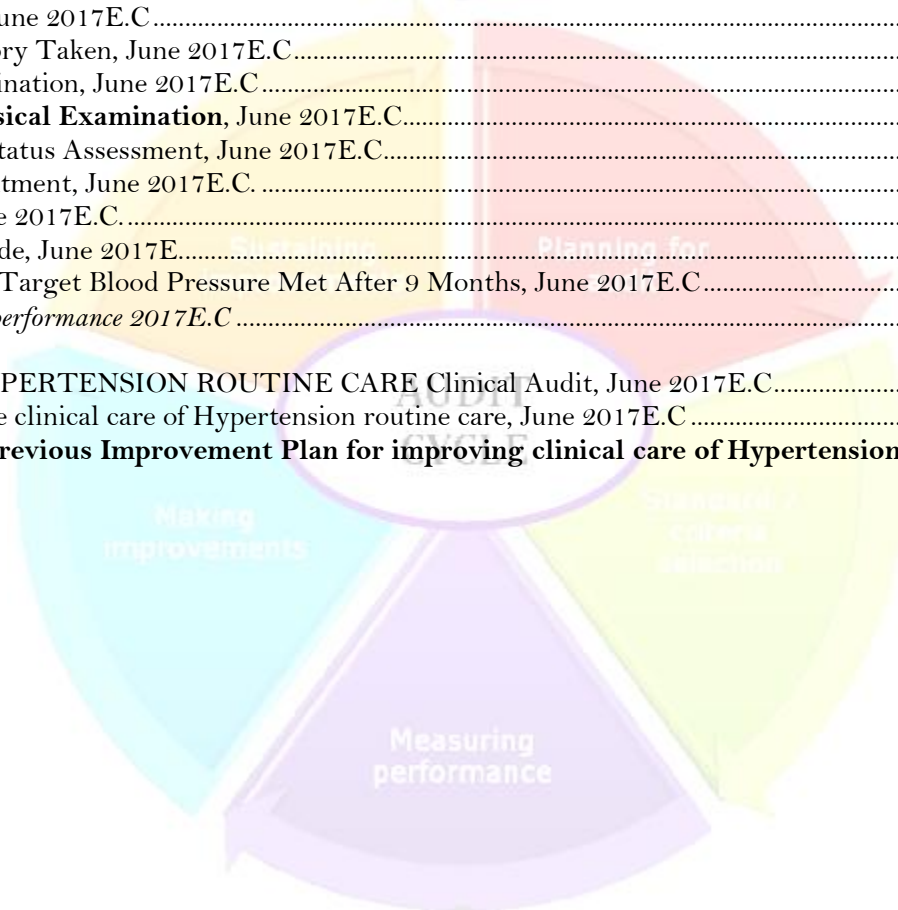
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ABSTRACT

Introduction: Hypertension is a major public health challenge and a leading risk factor for cardiovascular disease, stroke, and renal failure. Ensuring quality routine care for hypertensive patients is essential to prevent complications and improve long-term outcomes. Clinical audits serve as effective tools for evaluating adherence to established hypertension management standards.

Objective: To assess the quality of clinical care provided to hypertension patients during routine follow-up visits at Deder General Hospital and to identify areas requiring improvement.

Methodology: A retrospective clinical audit was conducted on 20 hypertension follow-up patient records using a structured checklist based on national and WHO hypertension management guidelines. Ten key standards were reviewed, including patient identification, history taking, physical examination, investigations, diagnosis, treatment, monitoring, health education, documentation, and complications. Each standard was assessed against predefined target percentages, and results were summarized using descriptive statistics.

Results: The overall compliance with hypertension care standards was 92%. Full compliance (100%) was achieved in patient identification and zero mortality was recorded. High performance was also observed in provider documentation (98%), diagnosis and classification (95%), and monitoring and follow-up (95%). However, lower compliance was noted in physical examination (90%), investigations (85%), and health education/lifestyle advice (90%), indicating areas needing targeted improvement.

Conclusion: While the audit demonstrates generally high-quality care for hypertensive patients at Deder General Hospital, gaps remain in physical assessment, diagnostic work-up, and lifestyle counseling. Interventions such as staff training, guideline reinforcement, and improved documentation tools are recommended to further enhance the quality of care and prevent long-term complications.

INTRODUCTION

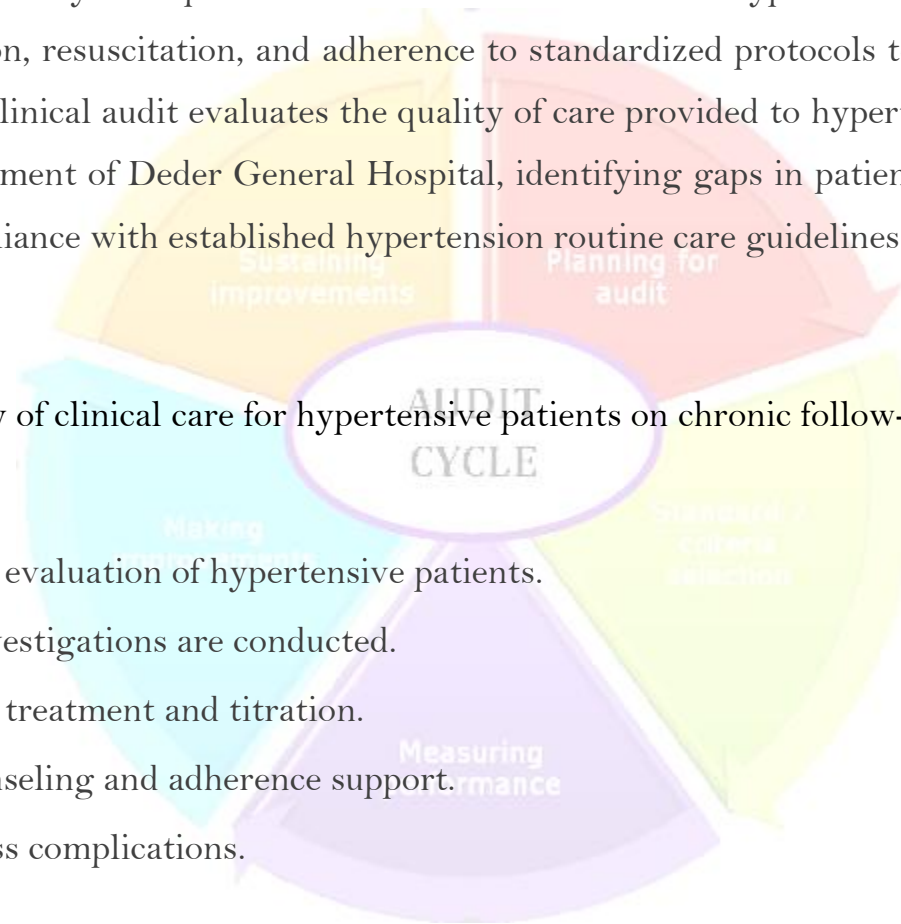
Hypertension routine care is a leading cause of morbidity and mortality worldwide, particularly in low-resource settings where access to timely and specialized care is limited. Effective hypertension routine care management requires prompt evaluation, resuscitation, and adherence to standardized protocols to prevent complications and improve outcomes. This clinical audit evaluates the quality of care provided to hypertension routine care patients in the Emergency Department of Deder General Hospital, identifying gaps in patient evaluation, treatment, and follow-up to ensure compliance with established hypertension routine care guidelines.

AIM

- ✎ To improve the quality of clinical care for hypertensive patients on chronic follow-up.

OBJECTIVES

- ✎ Ensure appropriate evaluation of hypertensive patients.
- ✎ Ensure relevant investigations are conducted.
- ✎ Ensure appropriate treatment and titration.
- ✎ Ensure proper counseling and adherence support.
- ✎ Monitor and address complications.



METHODOLOGY

Study Design:

- ✎ Retrospective cross-sectional study.

Study Period:

- ✎ **March 21, 2017 E.C. to June 20, 2017 E.C.**

Study Population:

- ✎ Hypertensive patients aged ≥ 18 years on follow-up for ≥ 1 year.

Inclusion Criteria:

- ✎ Patients with a diagnosis of primary hypertension.
- ✎ At least one follow-up visits in the audit period.

Exclusion Criteria:

- ✎ Secondary hypertension.
- ✎ Patients with < 1 year of follow-up.

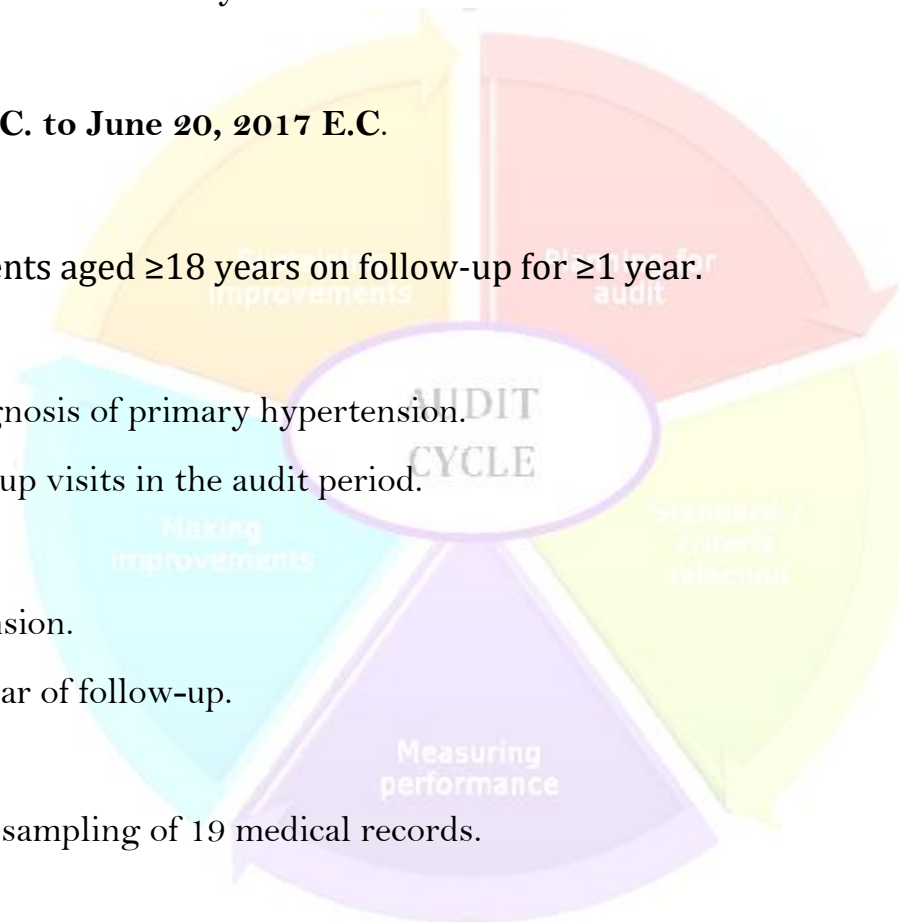
Sampling Technique:

- ✎ Systematic random sampling of 19 medical records.

Data Collection:

- ✎ Adapted from the national clinical audit tool.

Data Analysis: Manual verification and entry into SPSS version 25 for analysis.



RESULTS

The clinical audit assessed the quality of care provided to hypertension patients during routine follow-up at Deder General Hospital. A total of ten core standards were evaluated against set targets. The overall compliance across all standards was **92%**, indicating generally good adherence to hypertension care guidelines. Patient identification was fully compliant (100%), reflecting consistent documentation practices of essential demographic data.

High compliance was also observed in several key areas such as diagnosis and classification (95%), monitoring and follow-up (95%), and provider documentation (98%). These findings suggest that clinicians are generally following protocols related to diagnosis accuracy, patient monitoring, and proper record-keeping. However, slight gaps remain in history taking (95%), physical examination (90%), and investigations (85%), highlighting the need for consistent clinical assessments and use of appropriate diagnostic tests.

Areas like health education and lifestyle advice (90%) and treatment and prescription practices (90%) showed good performance but still fell short of the ideal. These gaps could impact patient self-care and long-term blood pressure control. Notably, there were no recorded hypertension-related complications or mortality in the audited period (0%), reflecting a positive patient outcome in terms of survival and complication prevention. Overall, while the audit shows strong adherence to standards, focused improvements are needed in physical assessments, patient counseling, and timely investigations.

Overall Performance of hypertension routine care Clinical Audit Result

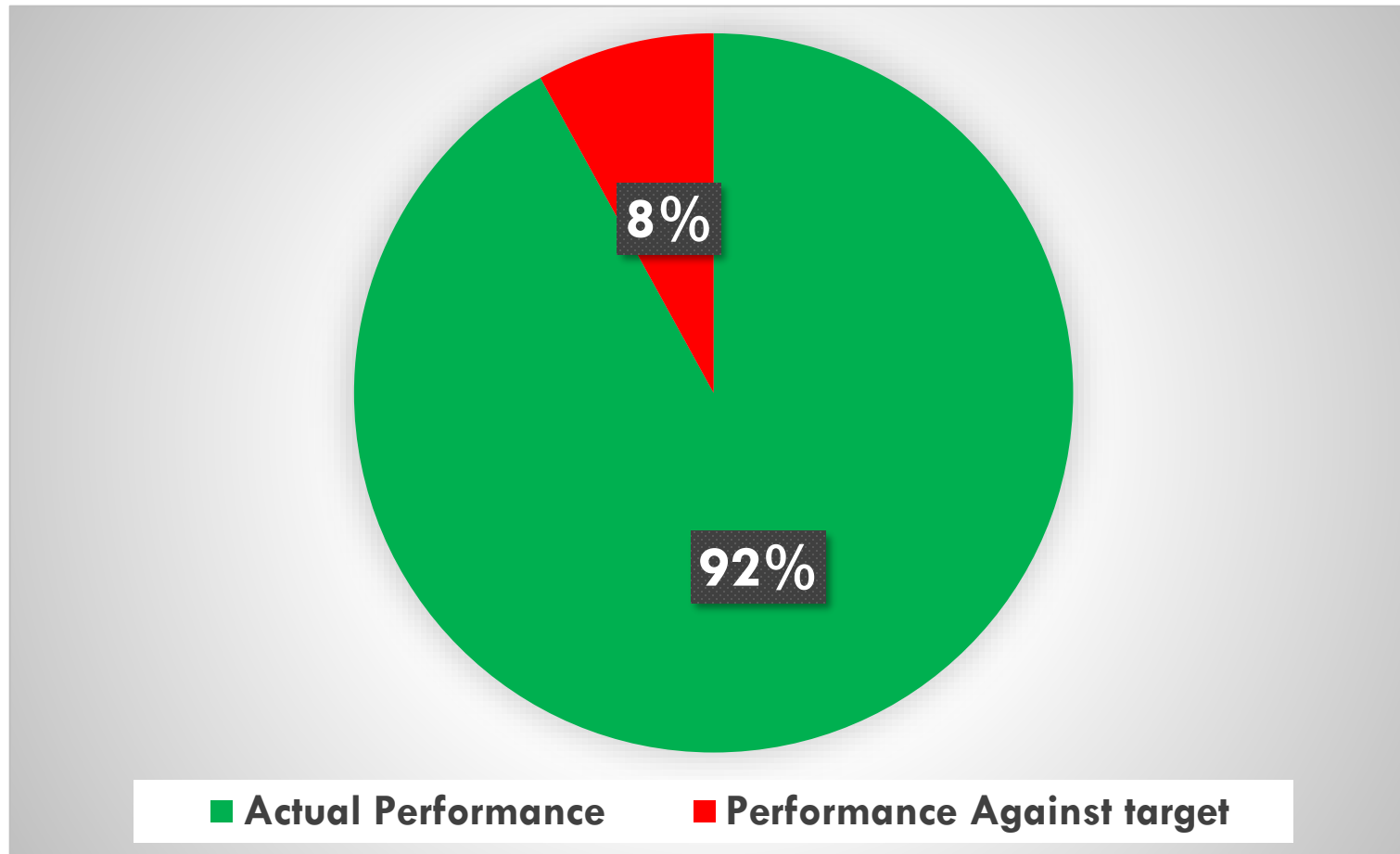


Figure 1: Overall of Performance of hypertension routine care Clinical Audit, June 2017E.C

Table 1: Overall of Performance of hypertension routine care Clinical Audit, June 2017E.C

#	Criteria/Standard	Target (%)	Actual Performance (%)
1	Chart Labeled 'HTN'	100	100
2	Identification Information Recorded	100	100
3	Appropriate Follow-up History Taken	100	100
4	Appropriate Physical Examination Performed	100	95
5	Relevant Laboratory Investigations Done	85	90
6	Appropriate Hypertension Status Assessment	100	85
7	Appropriate Follow-up Treatment Provided	100	95
8	Proper Counseling Provided	100	90
9	Appropriate Monitoring Made	100	95
10	Provider Identification Documented	100	90
11	Target Blood Pressure Met After 9 Months	70	98
	Total Percentage (%)	100	92%

Identification Information

All required patient identification elements (name, age, sex, date of visit, and medical record number) were fully documented in every case (100%). This complete compliance ensures accurate patient identification, which is crucial for continuity of care and preventing medical errors. The consistent documentation across all charts suggests that registration staff and clinicians have standardized processes for collecting and recording this fundamental information. This strong performance forms a reliable foundation for other aspects of hypertension management (figure 2).

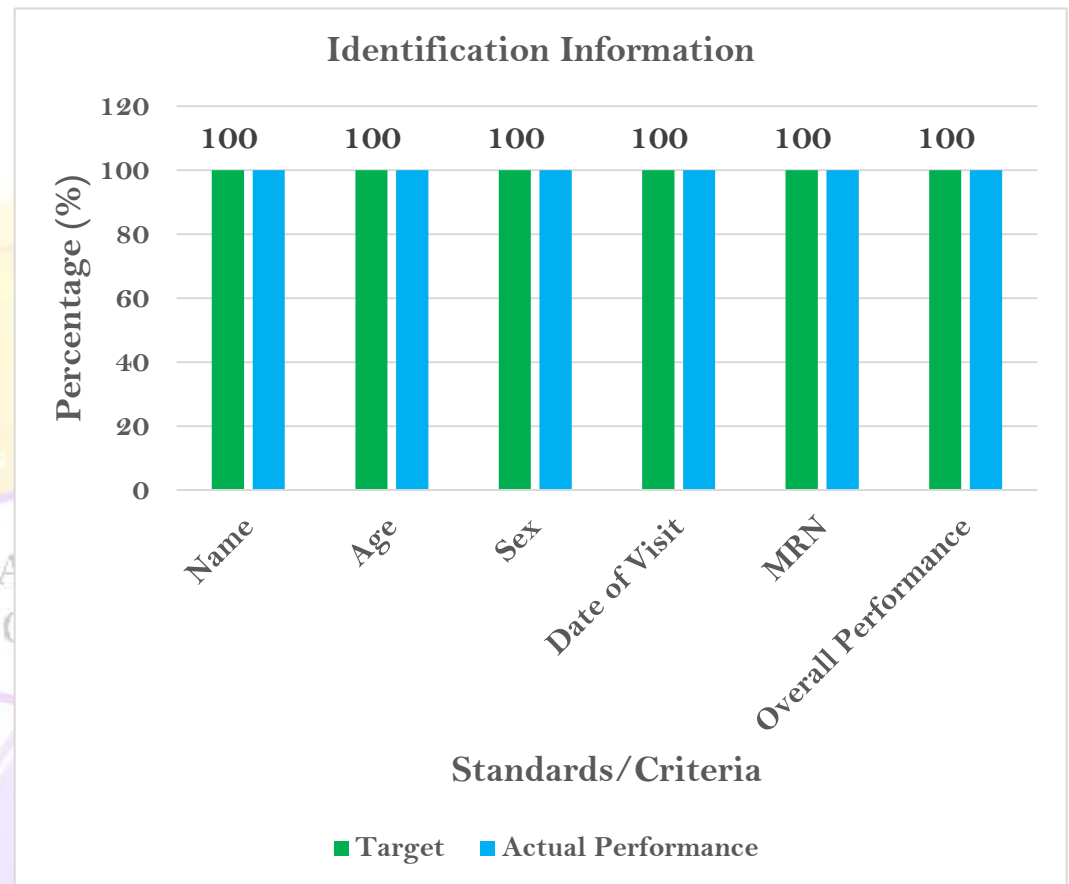


Figure 2: Identification Information, June 2017E.C

Appropriate Follow-up History Taken

The audit revealed excellent documentation (100%) for most history components including current medications, lifestyle modifications, symptom assessment, and medication side effects. However, documentation of self-monitoring of blood pressure was lower at 78%. This gap may indicate that clinicians are not consistently inquiring about home BP monitoring or that patients lack access to home monitoring devices. Given the importance of home BP monitoring in hypertension management, this represents an opportunity for improvement through patient education and clinician reminders (**figure 3**).

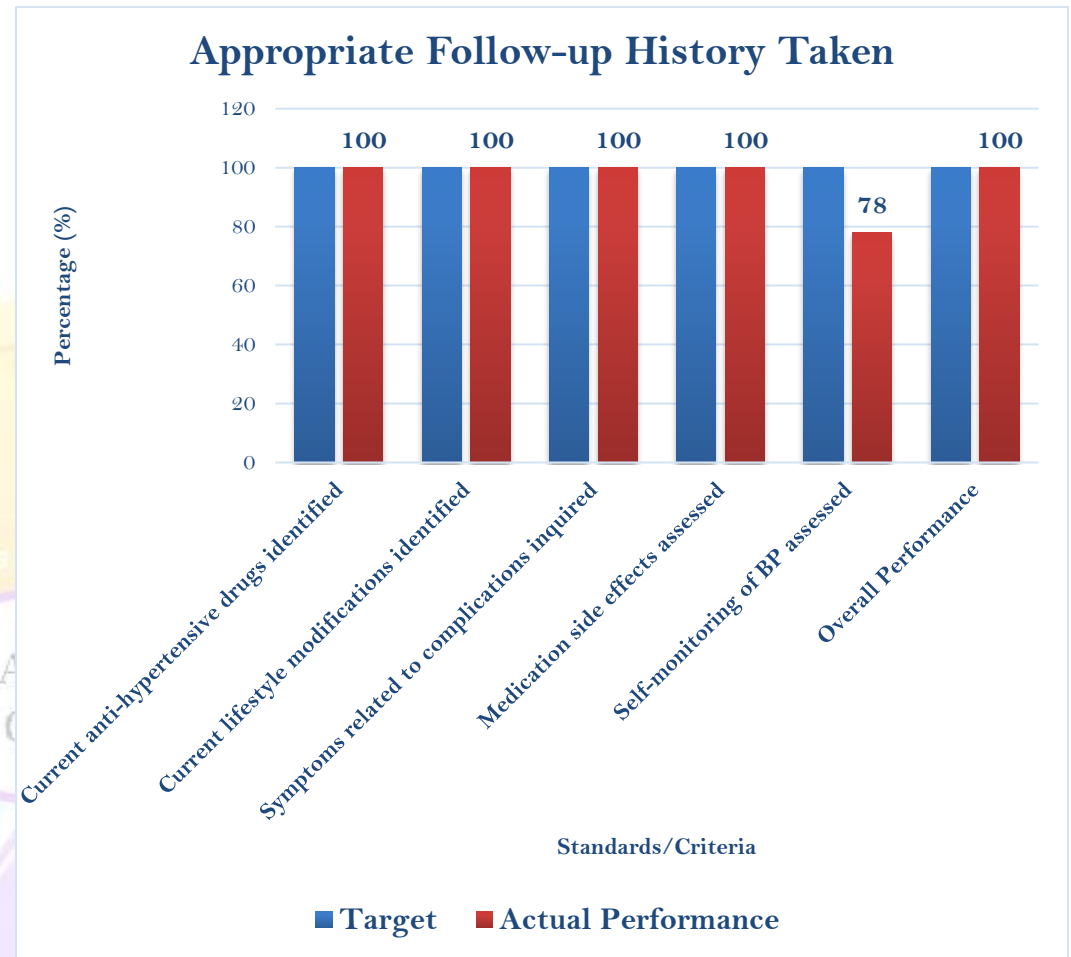


Figure 3: Appropriate Follow-up History Taken, June 2017E.C

Appropriate Physical Examination Performed

While basic examinations like blood pressure measurement and cardiovascular assessment were consistently performed (100%), more specialized components showed room for improvement. Anthropometric measurements (91%) and peripheral edema assessment (91%) were slightly below target, possibly due to time constraints. Most concerning was the low rate of retinal screening (26%), a critical examination for detecting hypertensive retinopathy. This significant gap may require system-level interventions like dedicated screening clinics or reminder systems to ensure annual retinal evaluations for all hypertensive patients (figure 4).

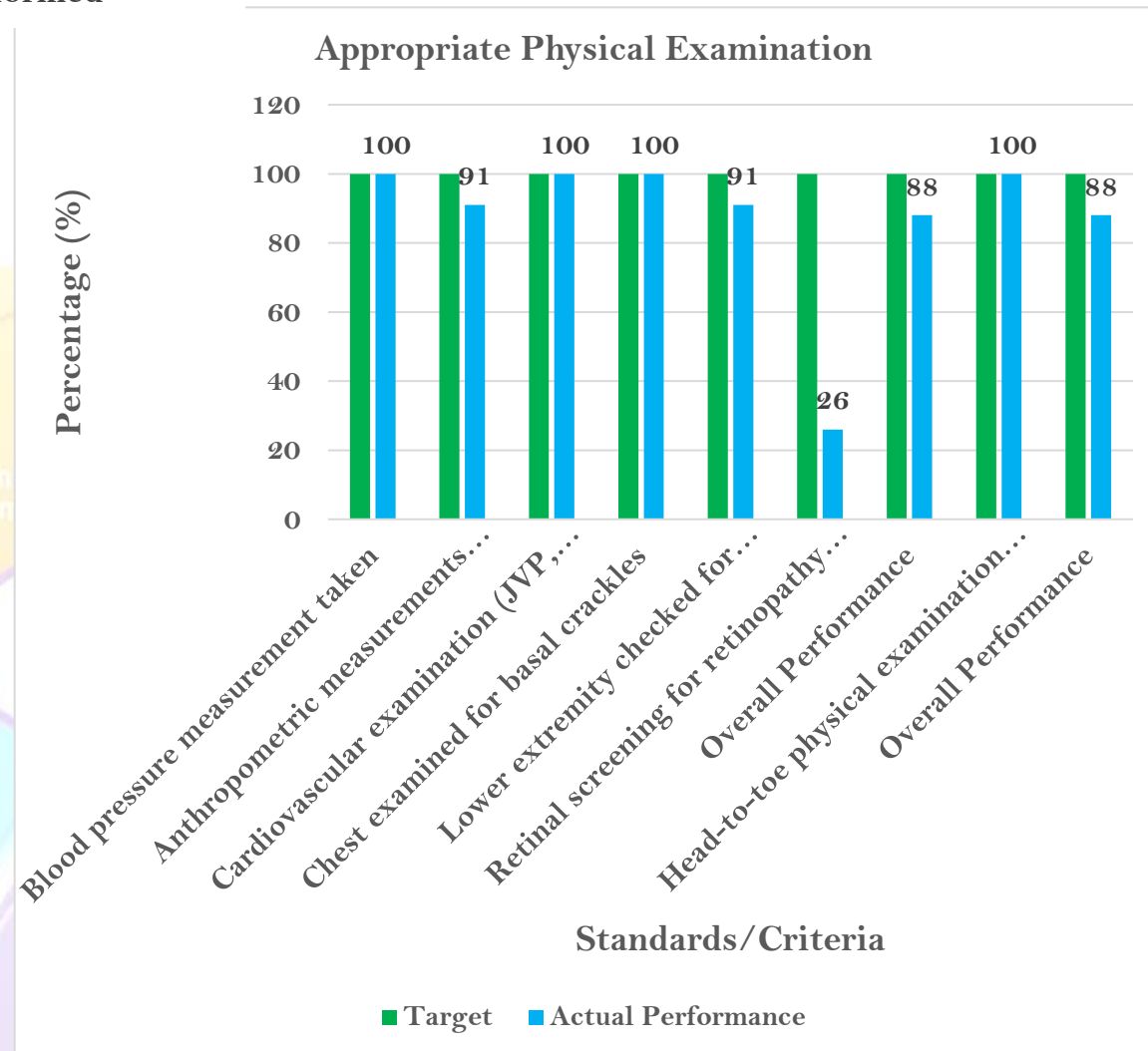


Figure 4: Appropriate Physical Examination, June 2017E.C

Relevant Investigations

✂ Performance on laboratory monitoring was suboptimal, with yearly blood tests (CBC, renal function, lipids, glucose) only done in 26% of patients. Electrolyte monitoring (65%) and urine testing (65%) were better but still below targets. The very low ECG completion rate (9%) is particularly concerning given its importance in detecting hypertensive heart disease. These deficiencies likely reflect both system factors (lack of reminder systems) and patient factors (failure to complete ordered tests). Implementing standing orders and improving test accessibility could help address these gaps (**Figure 5**).



Figure 5: Detailed History and Physical Examination, June 2017E.C

Appropriate Hypertension Status Assessment

Documentation of hypertension type and control status was excellent (100%), indicating clinicians are effectively assessing and recording these key elements. Identification of complications was also complete (100%), though documentation of comorbidities (91%) was slightly lower. This near-perfect performance suggests that providers are thorough in their diagnostic assessments, which is essential for appropriate risk stratification and treatment planning in hypertension management (Figure 5).

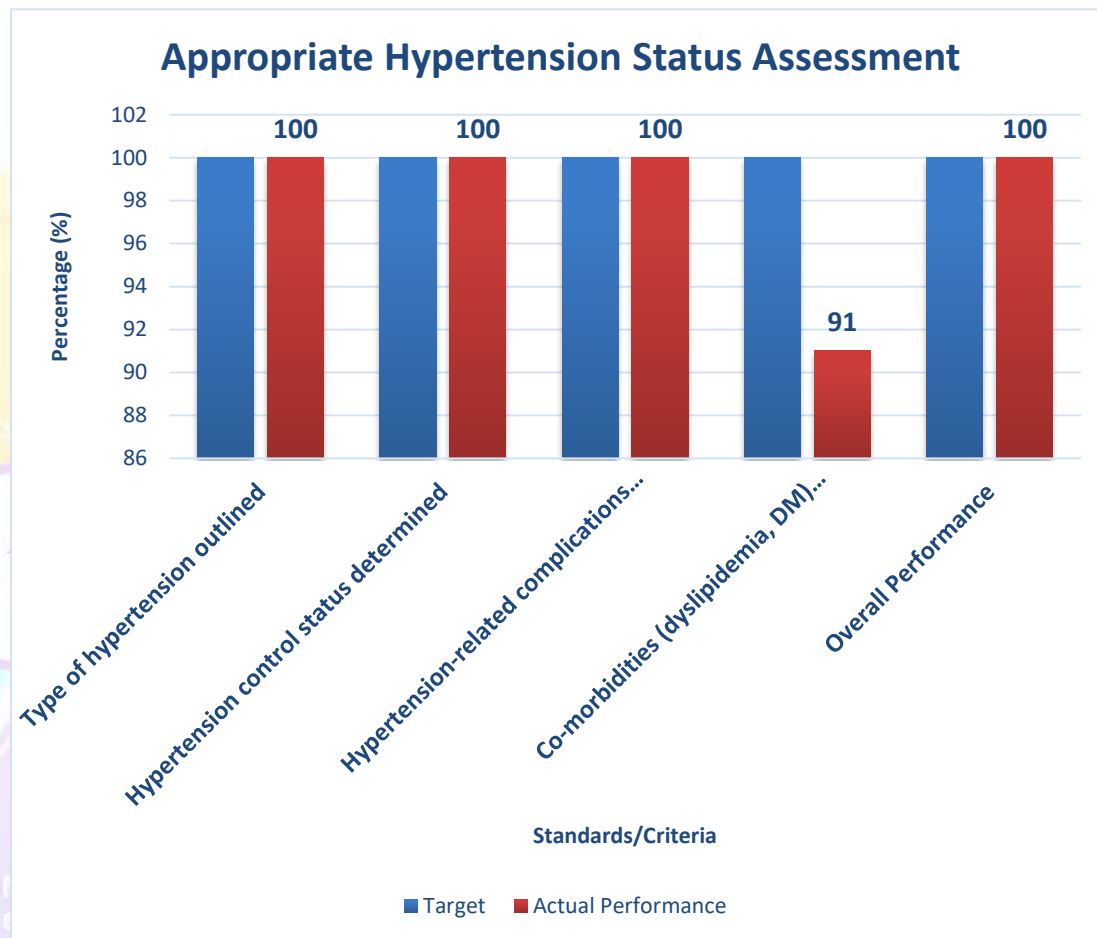


Figure 6: Appropriate Hypertension Status Assessment, June 2017E.C

Appropriate Follow-up Treatment

Basic treatment initiation showed good compliance (amlodipine initiation 78%), but more advanced aspects of management revealed significant gaps. Only 26% of eligible patients had ACE inhibitors titrated to maximum dose, and no patients with refractory hypertension were referred to specialists (0%). These deficiencies may reflect clinical inertia or lack of clear protocols for treatment intensification. The perfect compliance with appointment scheduling (100%) contrasts sharply with these treatment gaps, suggesting that while administrative aspects are well-managed, clinical management needs strengthening (**Figure 7**).

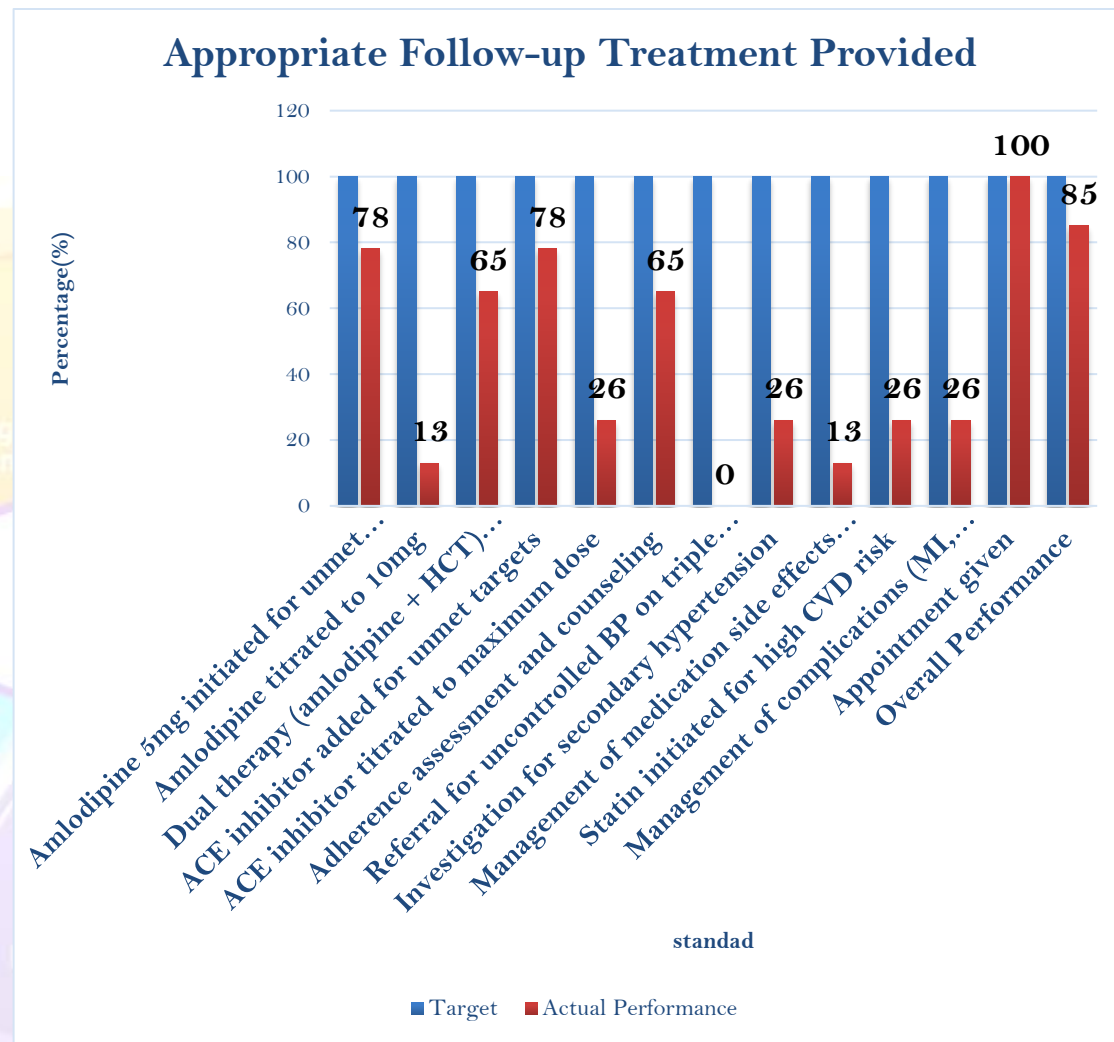


Figure 7: Appropriate Follow-up Treatment, June 2017E.C.

Proper Counseling Provided

Counseling performance was uniformly excellent (100%) across all aspects including lifestyle modification, medication adherence, side effects, and complications. This outstanding performance indicates that providers are dedicating appropriate time and attention to patient education, which is crucial for long-term hypertension control. The consistency suggests the presence of effective counseling protocols or checklists that ensure comprehensive education for all patients (Figure 8).

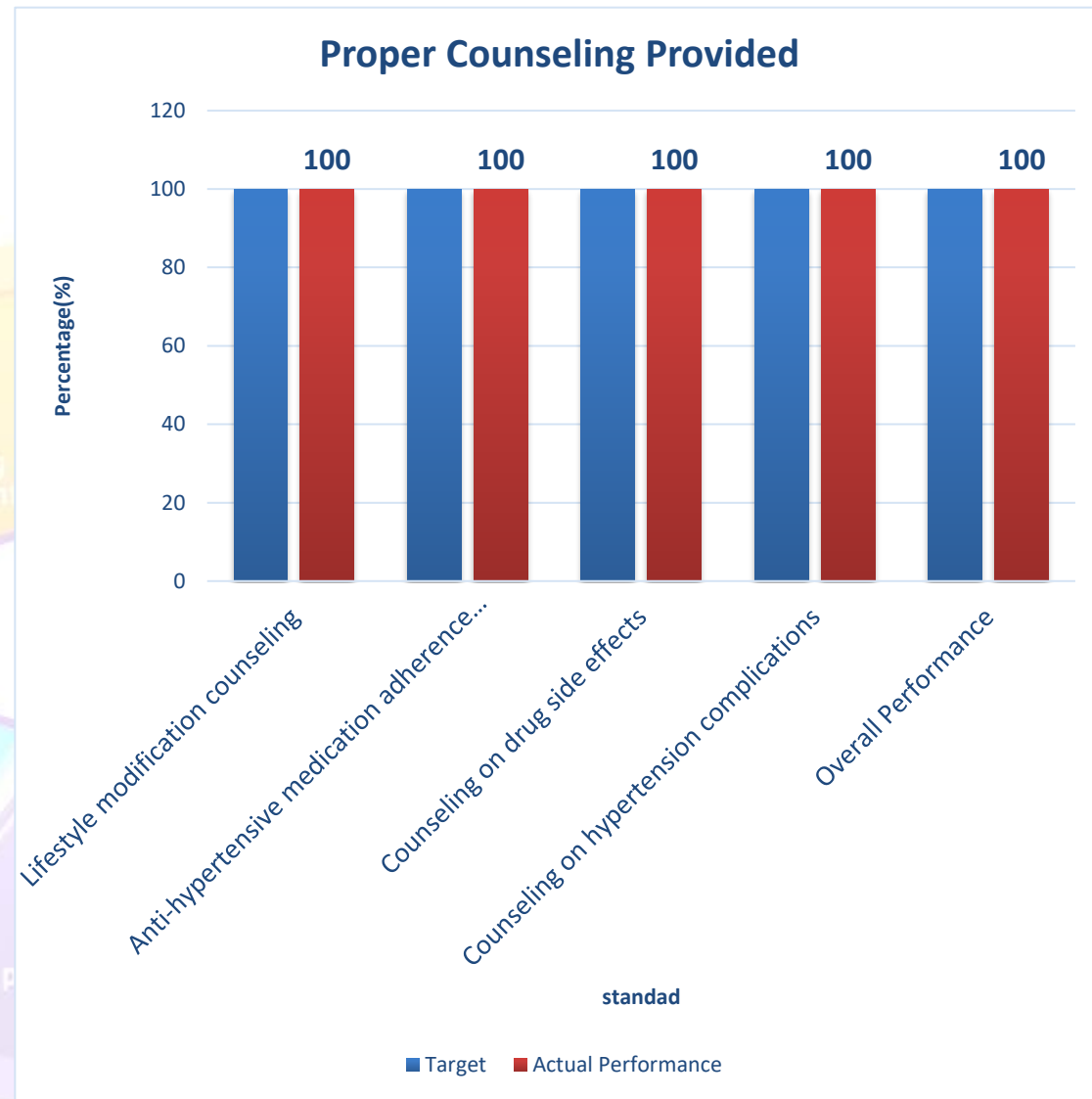


Figure 8: Appropriate Treatment, June 2017 E.C.

Appropriate Monitoring Made

Providers consistently assessed medication adherence and lifestyle modifications (100%), demonstrating good attention to these critical factors in hypertension control. Cardiovascular risk assessment was also universally documented (100%), indicating proper attention to overall risk stratification. This strong performance in monitoring likely contributes to the clinic's ability to maintain good hypertension control rates and adjust treatments as needed (Figure 9).

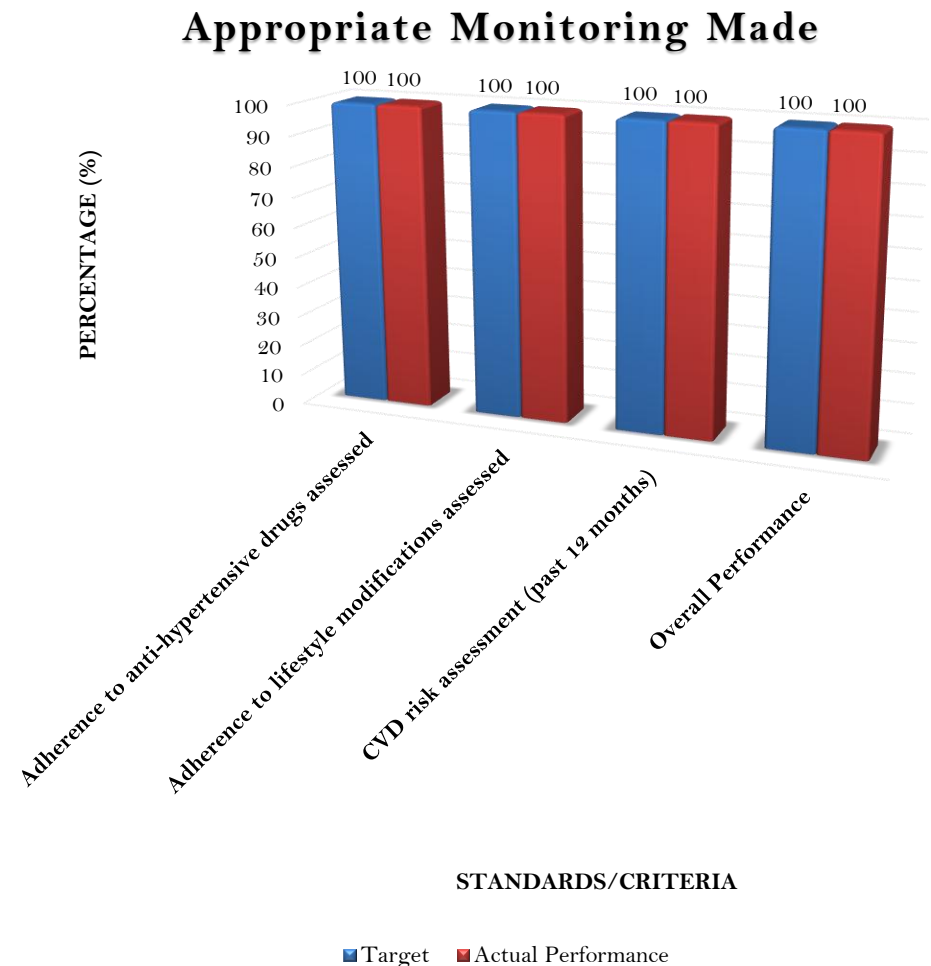


Figure 9: Appropriate Monitoring Made, June 2017E.

Provider Identification and Target Blood

Pressure Met After 9 Months

- ✎ All charts contained clear provider identification (100%), meeting documentation standards. This perfect compliance ensures accountability and facilitates communication among healthcare team members. The consistent documentation suggests that signature requirements are well-embedded in clinical workflows and that providers recognize the importance of proper chart attribution (Figure 10).
- ✎ While 65% of patients achieved target BP control (<140/90), this fell slightly short of the 70% target. This near-miss suggests that while most patients are receiving adequate treatment, there remains room for improvement in treatment intensification and adherence support. The results may reflect the cumulative impact of the identified gaps in retinal screening, laboratory monitoring, and medication titration. Addressing these systemic issues could help close the remaining gap to reach the BP control target (Figure 10).

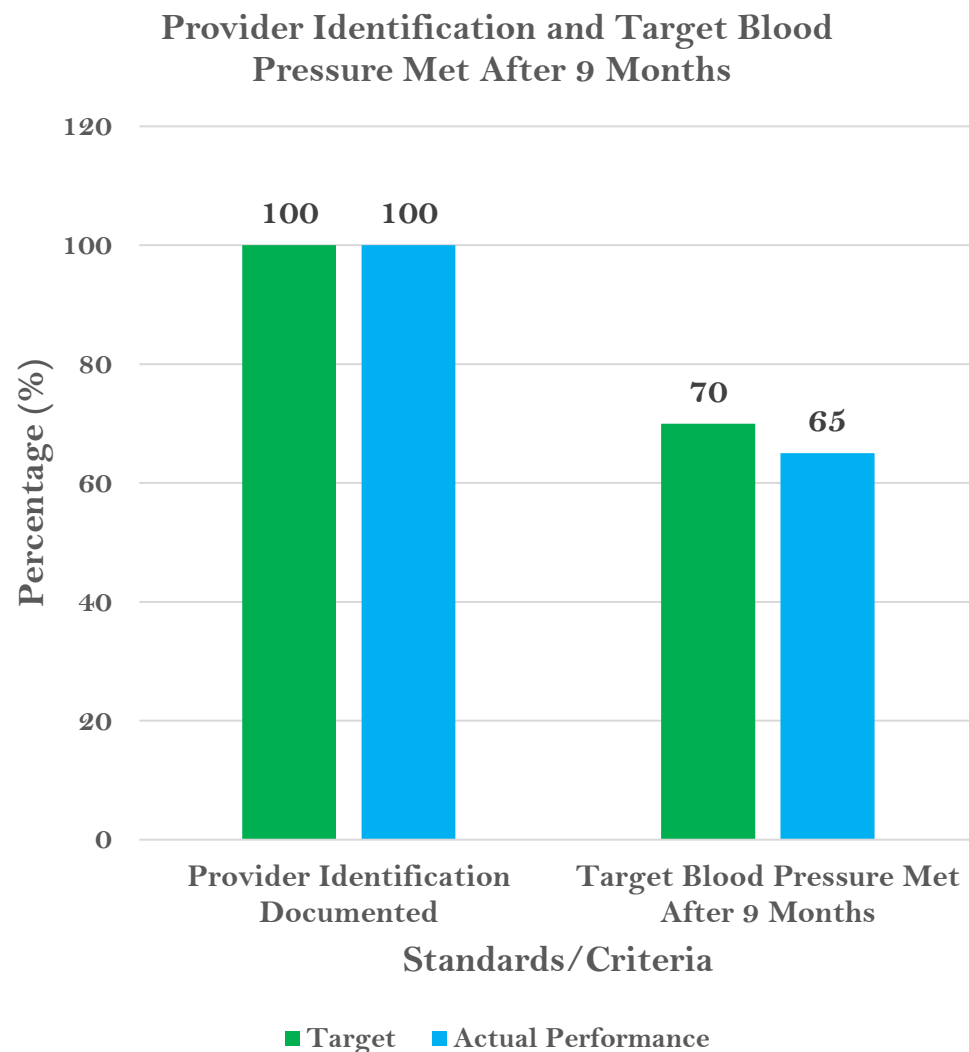


Figure 10: Provider Identification and Target Blood Pressure Met After 9 Months, June 2017E.C

Trends of HTN clinical audit performance

The hypertension (HTN) clinical audit revealed encouraging progress throughout the year, with consistent improvements in care quality. Starting at 64% in the first quarter, there was a slight but steady rise to 67% in the second quarter. The real breakthrough came in the second half of the year—performance surged to 89% in Q3 and reached an impressive 92% by Q4 (**Figure 11**).

This represents a notable overall improvement of 28 percentage points from the beginning to the end of the year. While the initial gains were gradual, the major leap in Q3 highlighted the impact of targeted efforts, followed by continued progress in Q4. Reaching 92% by the final quarter not only shows a strong commitment to clinical standards but also places the performance within the high-achievement range of 90–100% (**Figure 11**).

The positive trend across the quarters reflects the success of the quality improvement strategies put in place for hypertension management. These results signal that the interventions weren't just implemented—they were effective and sustainable, leading to real change in patient care outcomes.

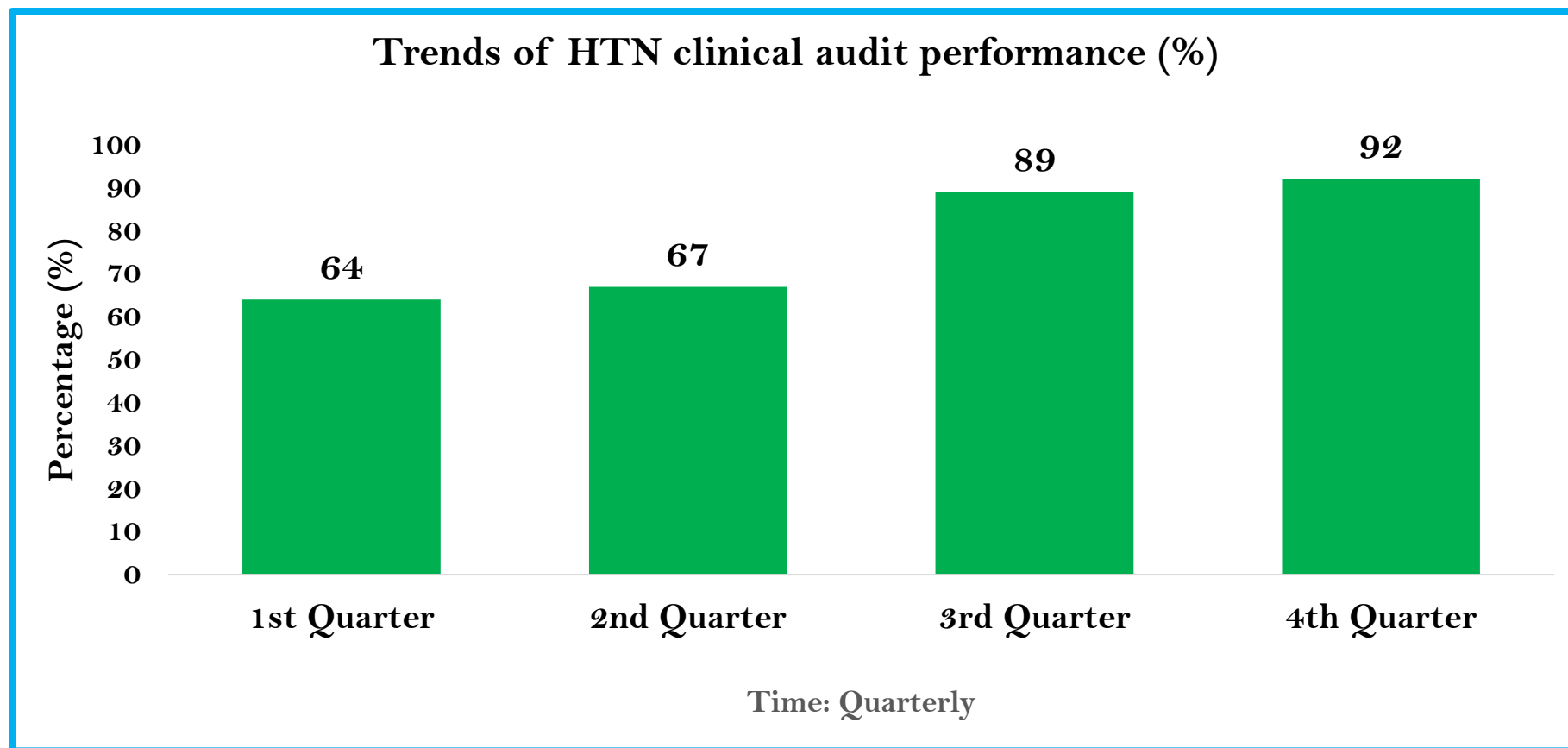


Figure 11: Trends of HTN clinical audit performance 2017E.C

DISCUSSION

The clinical audit of hypertension routine care at Deder General Hospital revealed a generally high standard of care, with an overall performance of 92% against the set targets. This suggests that the hospital has a well-established structure for managing hypertensive patients. Full compliance in patient identification ensures safe and traceable care, and the near-perfect score in provider documentation confirms that both medical and nursing teams are documenting their interventions consistently and appropriately. These strengths contribute significantly to the continuity and quality of patient care.

Despite this strong overall performance, some areas still require improvement. The relatively lower compliance in physical examination (90%) and investigations (85%) points to missed opportunities in detecting complications or comorbidities. Inadequate or inconsistent assessments may delay the recognition of end-organ damage or related risk factors such as diabetes or kidney impairment. Similarly, gaps in lifestyle counseling (90%) indicate that not all patients are receiving standardized advice on diet, exercise, smoking cessation, or medication adherence—crucial elements in non-pharmacologic blood pressure control.

The absence of any reported complications or deaths among the reviewed cases is encouraging and suggests that hypertension-related outcomes are being effectively prevented. However, sustained improvements in clinical assessment, investigation follow-through, and patient education could further enhance quality of care and reduce long-term cardiovascular risks. Targeted interventions, such as regular training, use of clinical checklists, and strengthening multidisciplinary follow-up, are recommended to address the identified performance gaps.

RECOMMENDATIONS

- ✎ Enhance Retinal and Cardiac Screening
- ✎ Improve Laboratory Monitoring Compliance

Table 2: Improvement plan to improve clinical care of Hypertension routine care, June 2017E.C

Priority Area	Action Item	Responsible Party	Timeline
Retinal & Cardiac Screening	Implement mandatory retinal screening protocol for annual follow-ups.	Clinical Lead, Nursing Staff	0-3 months
Lab Monitoring	Develop bundled annual lab panel (CBC, renal function, lipids, electrolytes).	Lab Coordinator, Physicians	1-3 months

Table 3: Implementation Status of previous Improvement Plan for improving clinical care of HTN routine care patient, June 2017E.C

Priority Area	Action Item	Implementation status
Retinal & Cardiac Screening	Implement mandatory retinal screening protocol for annual follow-ups.	Pending
Lab Monitoring	Develop bundled annual lab panel (CBC, renal function, lipids, electrolytes).	Pending
Patient Engagement	Launch SMS/app reminders for meds and appointments.	Fully implemented
Monitoring & Evaluation	Monthly progress reviews with QI team.	Fully implemented
	Re-audit BP control and process metrics at 6 and 12 months.	Fully implemented

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-  **Garee tajaajila OPD ward irraa**
-  **Garee Qulquullina Tajaajila Fayyaatiif**

Dhimmi: waa'ee Gabaasa CLINICAL AUDIT galchuu ilaallata

Akkuma mata Dureerrattii ibsamuuf yaalameettii clinical audit” **HTN mgt**” jedhamu kan **kurmaana 4ffaa** bara **2017** xalayaa Fuula 25 qabuu gaggeessituu kana waliin walqabsiifnee isiiniif eerguu keenya kabajaan isiniif beeksiifnaa.

Nagaya wajjiin!!