DEDER GENERAL HOSPITAL

CLINICAL AUDIT FINDING ON THE MANAGEMENT OF PNEUMONIA IN AN INPATIENT WARD.

By: Dr. Tsegaye (Medical Ward Case Team Leader)

Deder, Oromia,

December 2017E.C

TOGETHER, WE CAN MAKE A DIFFERENCE!!

Medical Ward Case Team Clinical audit team members:

S/N	Full Name	Status	Role
I	Dr. Alamudin A/Yasin	Inpatient Director	Chairperson
2	Dr.Tsegaye	MW Assigned Doctor	Member
3	Laliftu Abdurhaman	Medical Ward Head	Secretary
4	Dine Mohamed	Staff	Member
5	Muluqan Tasfaye	Staff	Member
6	Abrahim Mohamed	Staff	Member
7	Abdurhaman Shamee	Staff	Member
8	Calaa Abrahim	Staff	Member
9	Bayan Mohammadnur	Staff	Member

TOGETHER, WE CAN MAKE A DIFFERENCE!!

OUTLINES

- ❑ Introduction
- ❑ Purpose
- ❑ Objectives
- ❑ Methodology
- ❑ Result
- ❑ Discussion
- ❑ Recommendation

INTRODUCTION

- The second-quarter 2017 audit focuses on the management of community-acquired pneumonia (CAP) in **patients admitted to the Emergency Department (ED)** and subsequently to **inpatient wards.**
- Pneumonia remains a significant contributor to morbidity and mortality, emphasizing the need for consistent adherence to clinical guidelines for **diagnosis**, **treatment**, and **patient care.**
- This report evaluates compliance with established guidelines and identifies gaps in care to improve the quality of pneumonia management in the DGH.

Aim

- To enhance the quality of care provided to patients diagnosed with community-acquired pneumonia through evaluation and adherence to best practices

Objectives

- *To ensure adult patients admitted with CAP are evaluated using comprehensive history-taking and physical examination.*
- *To confirm adherence to diagnostic protocols, including imaging and laboratory investigations.*
- *To promote evidence-based treatment and proper antibiotic administration.*
- *To ensure appropriate monitoring of patient progress and discharge planning.*
- *To identify and address non-compliance areas to refine pneumonia management strategies.*

Methodology and Sampling

Methodology

- A retrospective cross-sectional audit was conducted,
- Reviewing patient records to assess adherence to CAP management standards based on national and international guidelines.
- Data were collected using **structured audit tools** and **triangulated across various** sources, including **admission history sheets**, **investigation reports**, and **discharge summaries.**

Methodology and Sampling

Sampling

- **Simple random sampling method**

Inclusion Criteria:

- *Adult patients (age >14 years) diagnosed with CAP requiring hospital admission.*

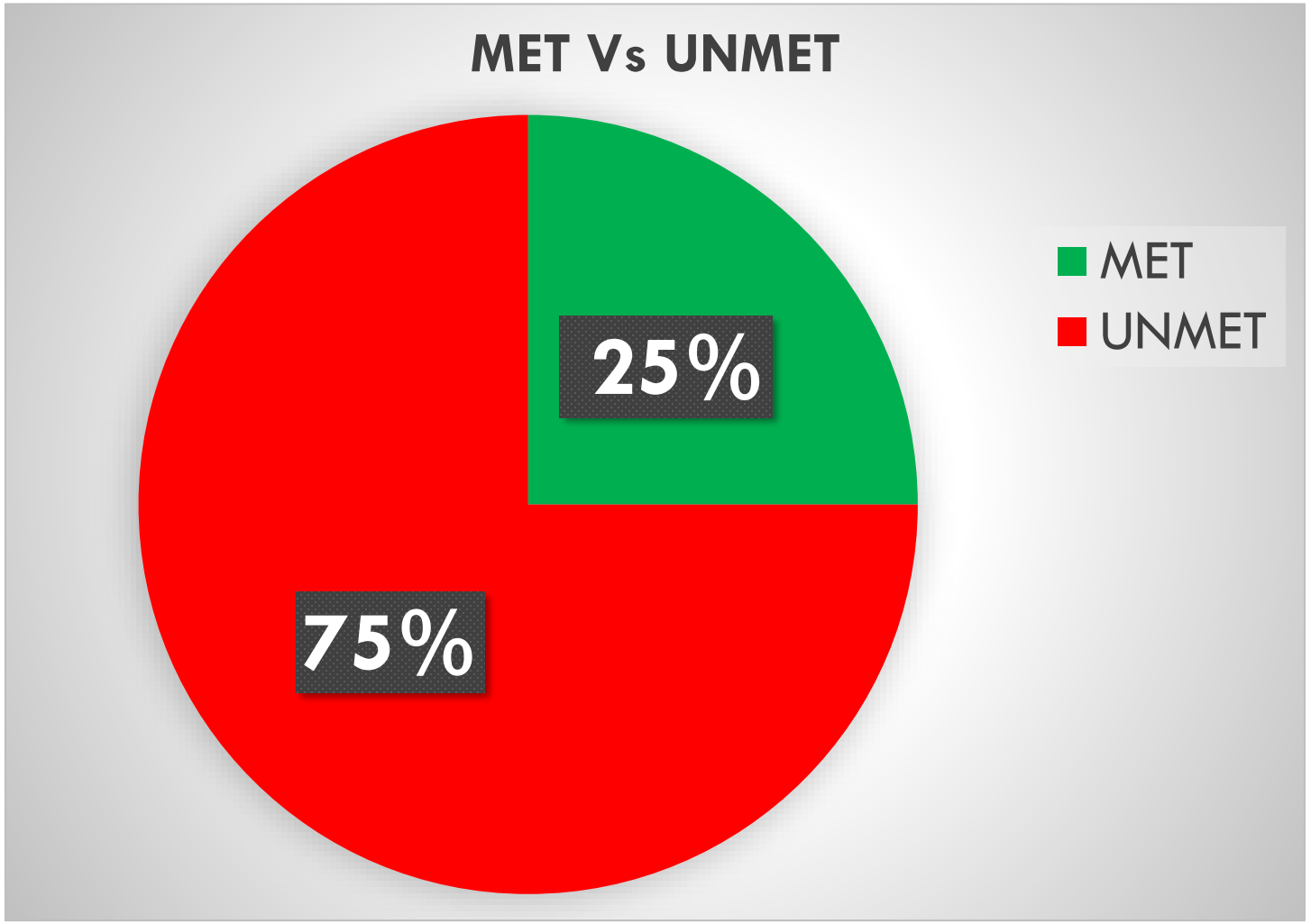
Exclusion Criteria:

- *Patients under 14 years, cases of healthcare-associated pneumonia, or those diagnosed with aspiration pneumonia.*
- *A total of 19 patient charts were randomly selected for review*

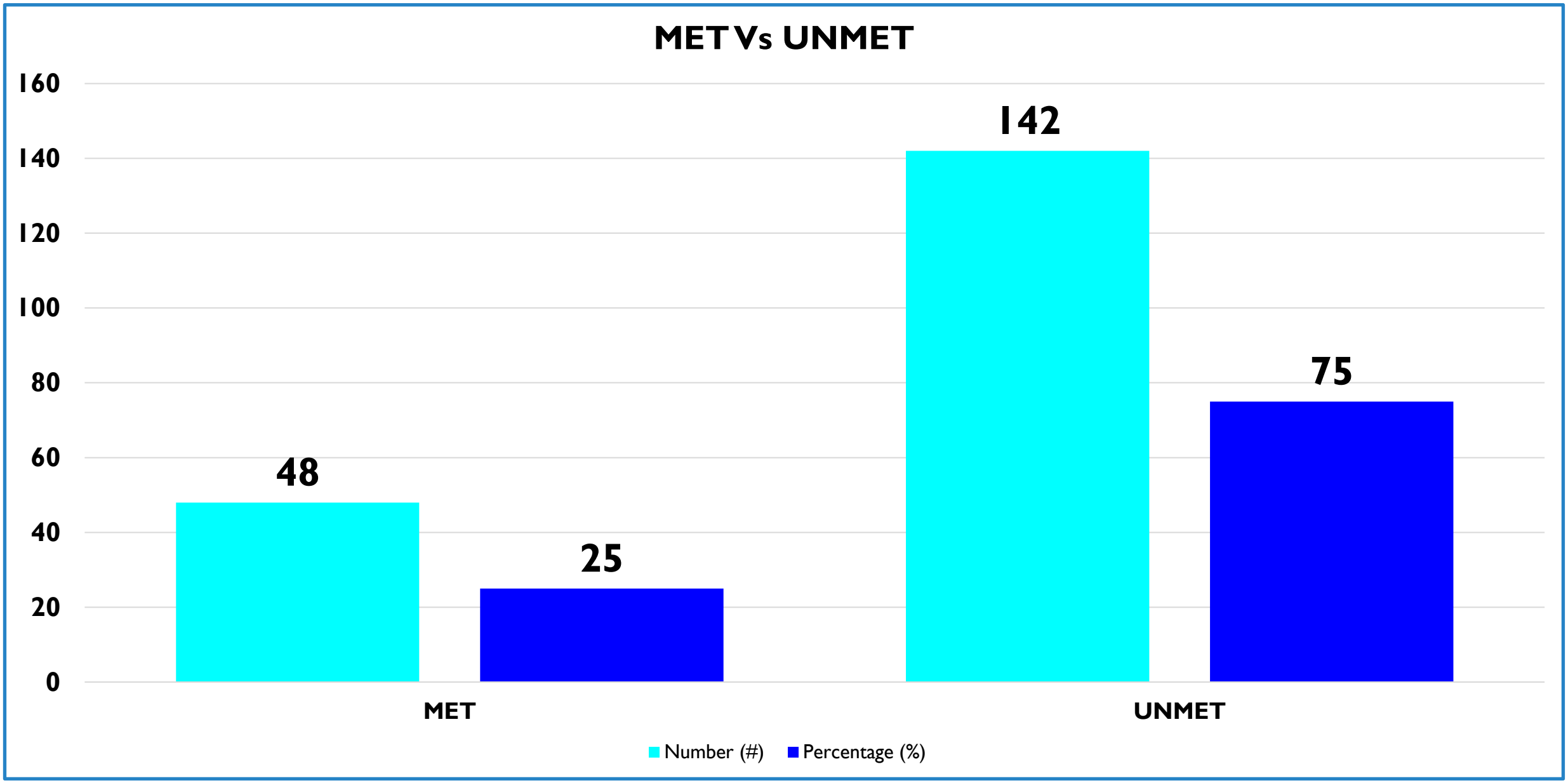
RESULTS

Results

The overall appropriate Pneumonia management was **25%.**

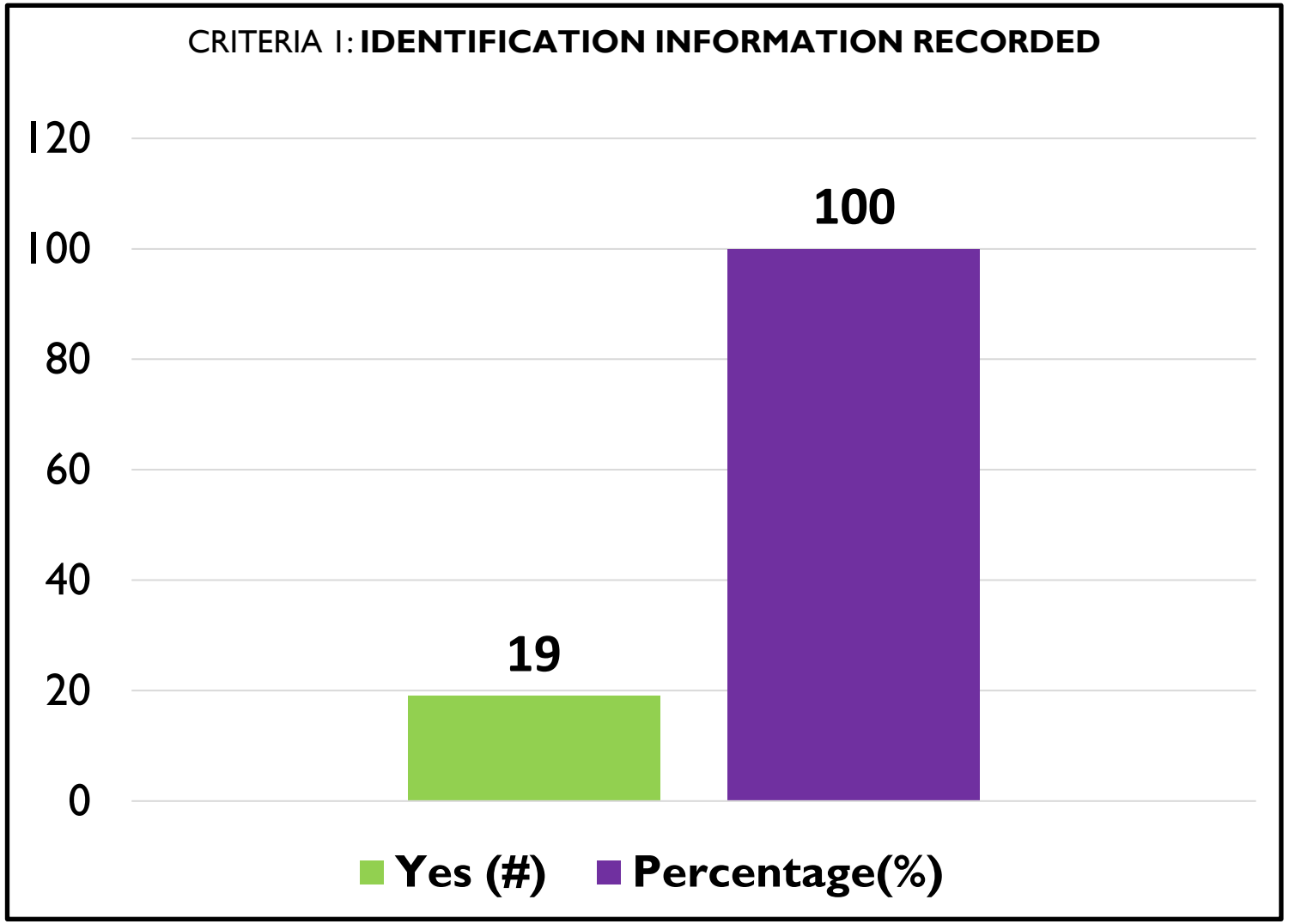


Total standards(10*19=190)



IDENTIFICATION INFORMATION RECORDED

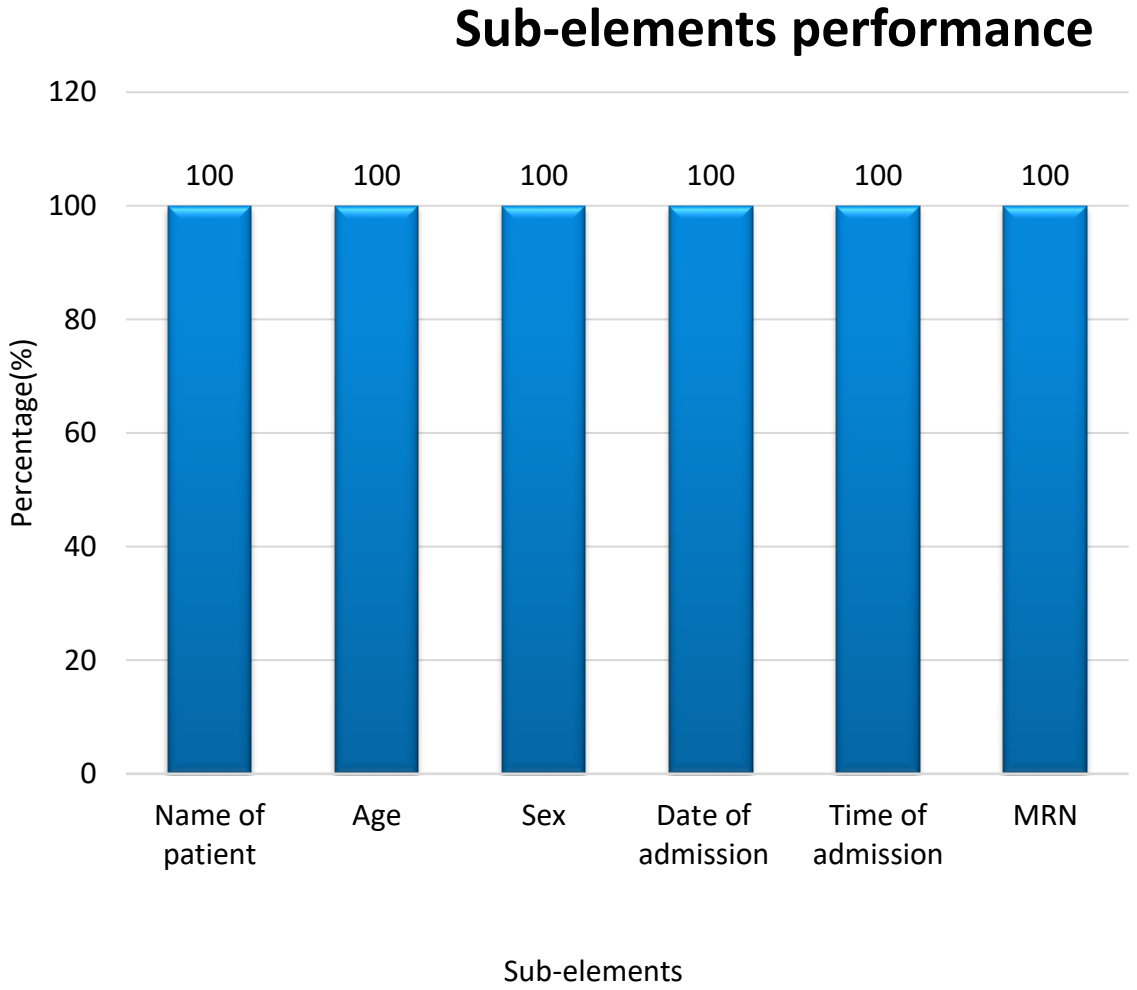
- Identification information is recorded for all 19(100%) patients with CAP



IDENTIFICATION INFORMATION …Cont'd

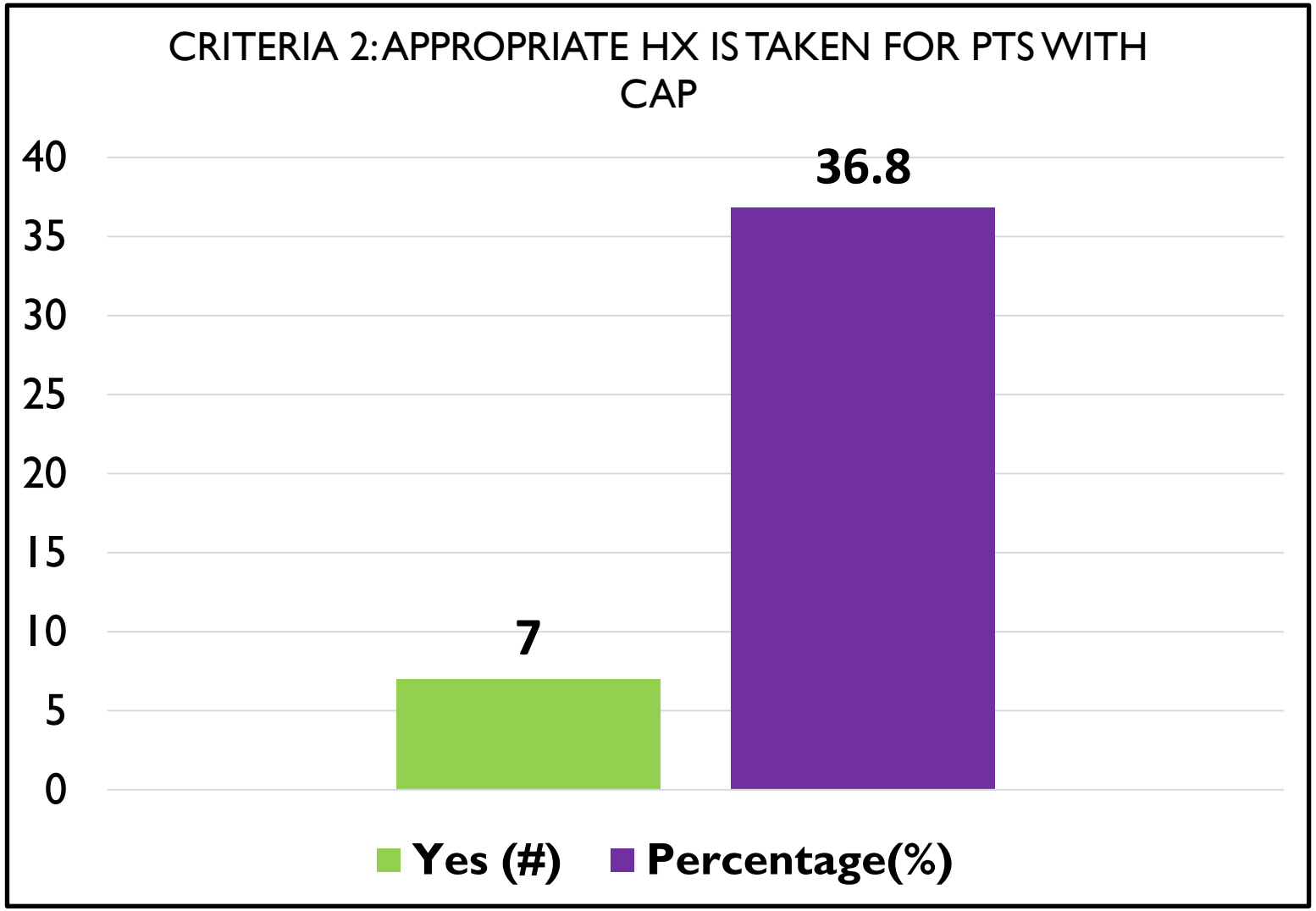
sub-elements compliance showed good performance with:

- Name, Ag, Sex, Date of visit, Time of admission, and MRN were recorded for all 19(100%) patients admitted with CAP.



HISTORY TAKING

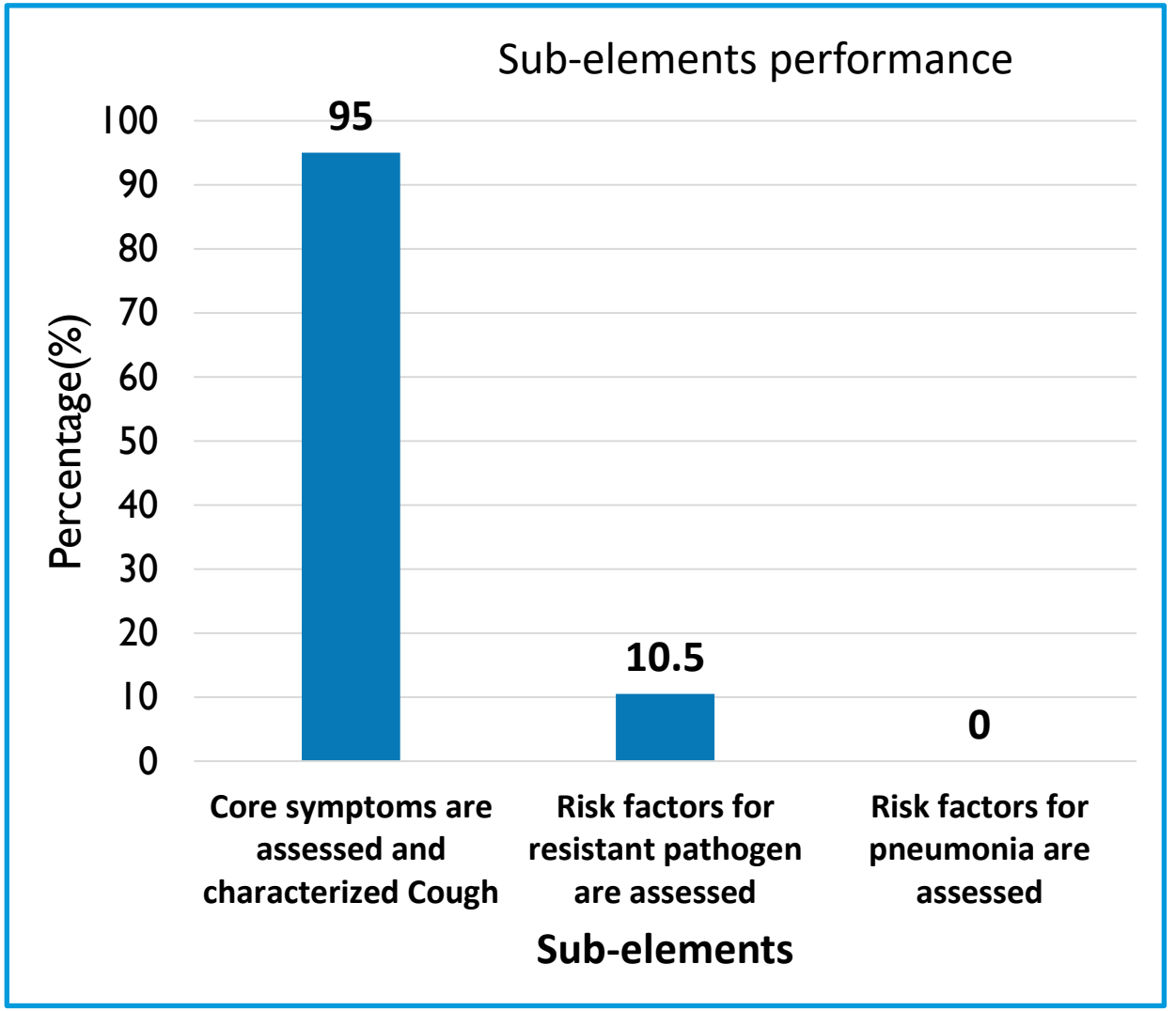
- Comprehensive history-taking showed poor compliance, with overall parameters as low as 37%.



HISTORY TAKING…Cont'd

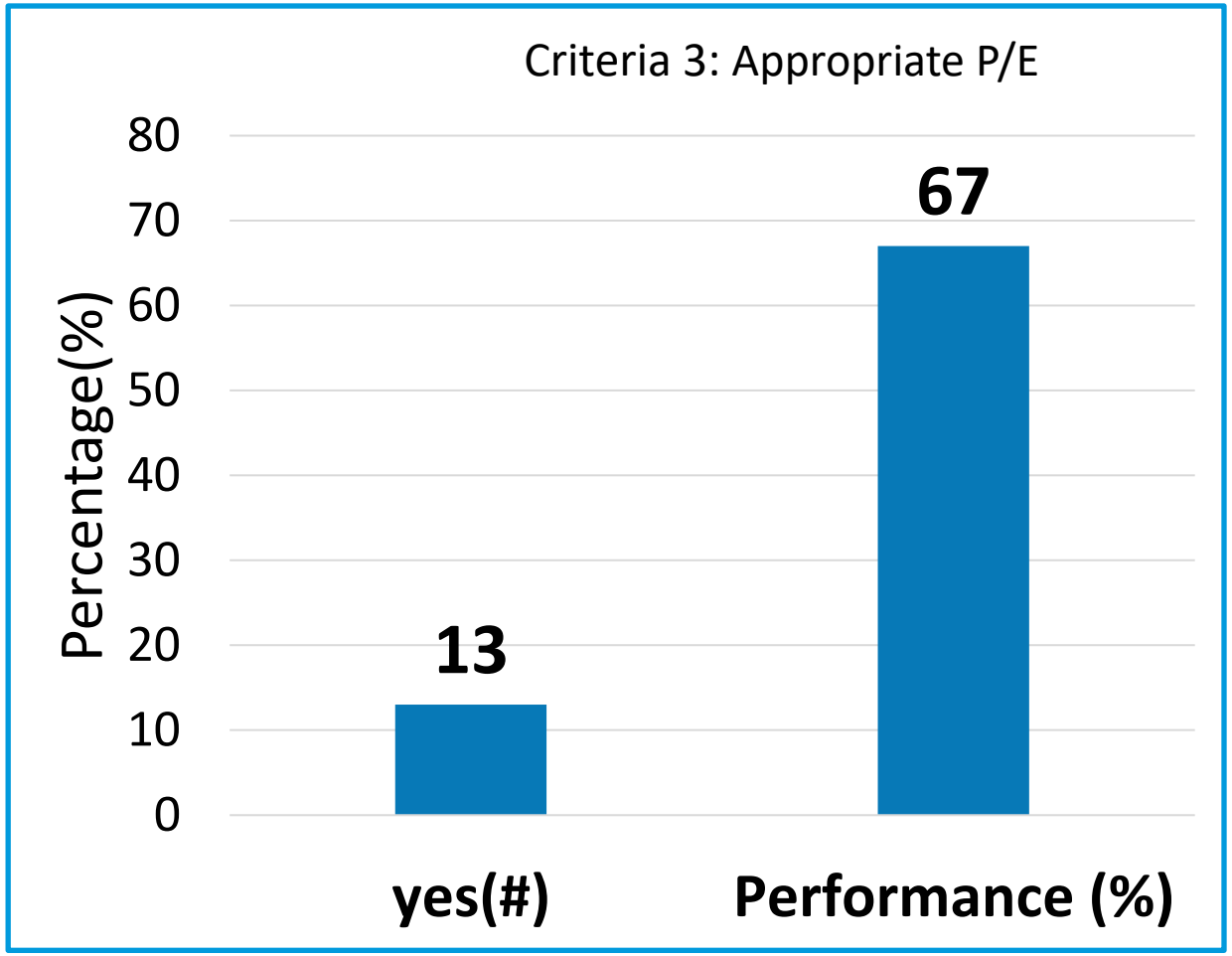
sub-elements compliance showed poor performance with:

- Risk factors for resistance pathogen and pneumonia ass't were 10% and 0 respectively.
- However, the core symptoms ass't was 95%.



PHYSICAL EXAMINATION

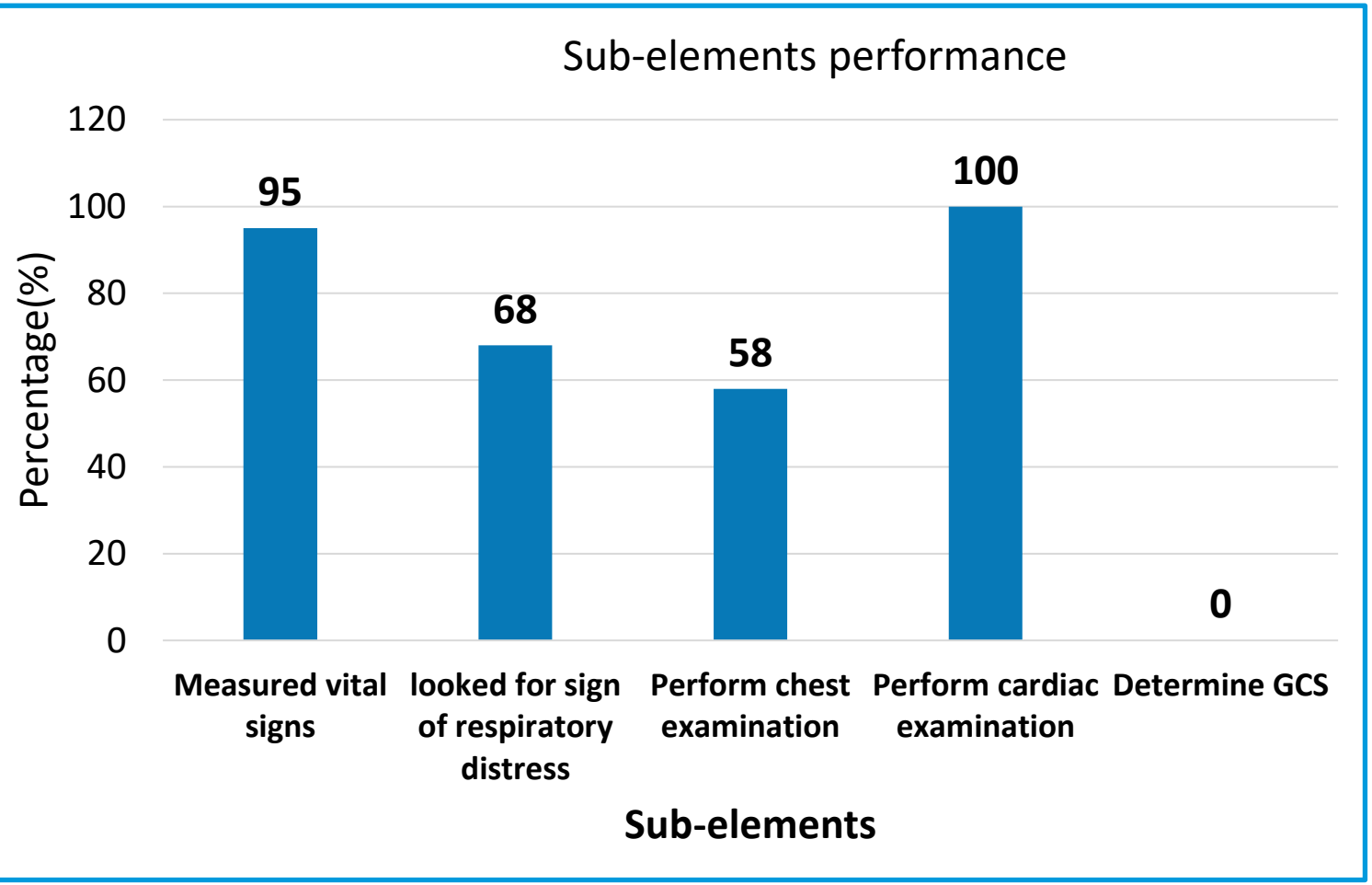
- Appropriate physical examination is performed for 13(67%) of a patient with CAP



PHYSICAL EXAMINATION …Cont'd

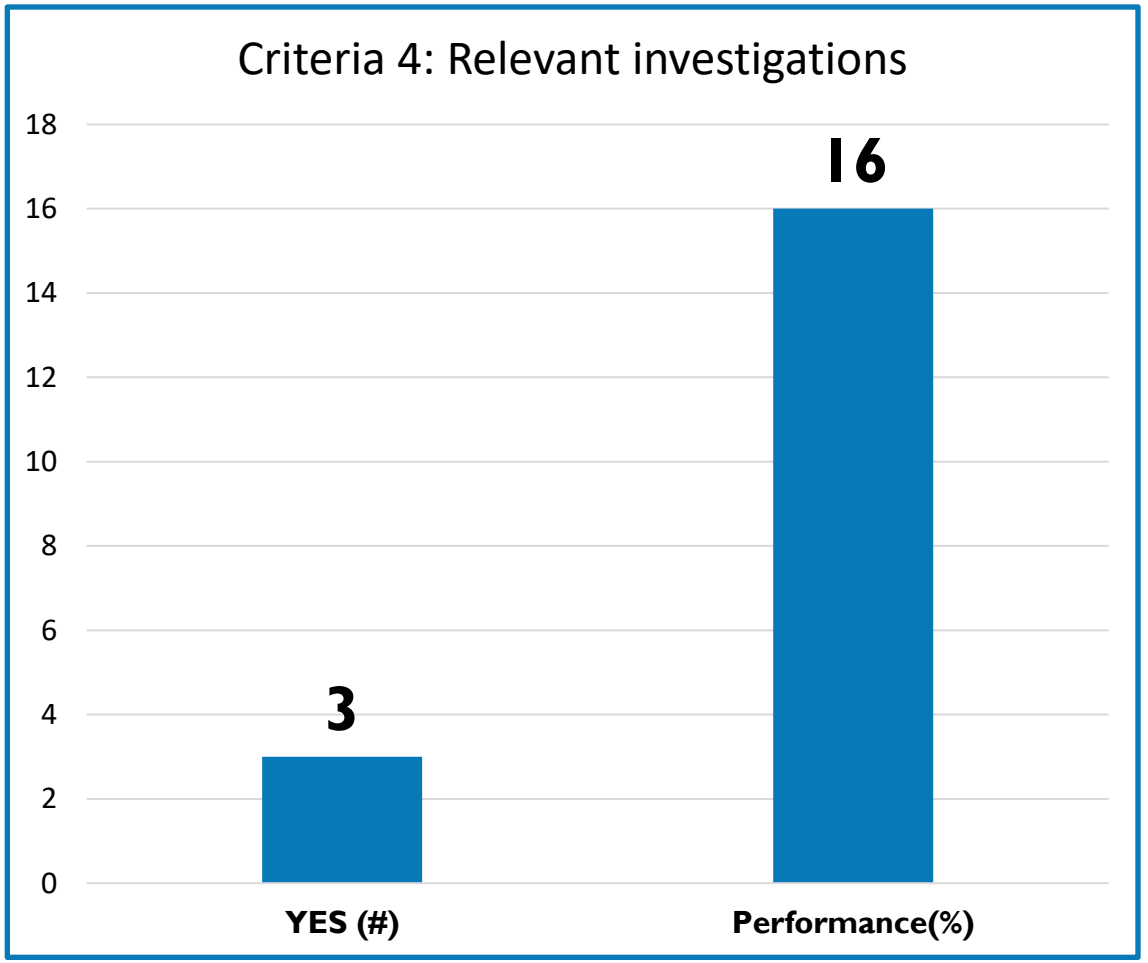
Compliance with the sub-elements showed good performance with:

- Cardiac examination and vital signs were performed in 19 (100%) and 18 (95%) patients with CAP, respectively.
- Chest examination and signs of respiratory distress were performed in **11 (58%) and 13 (68%) patients with CAP, respectively.**
- However, GCS was not determined for all patients with CAP (0%)



RELEVANT INVESTIGATIONS

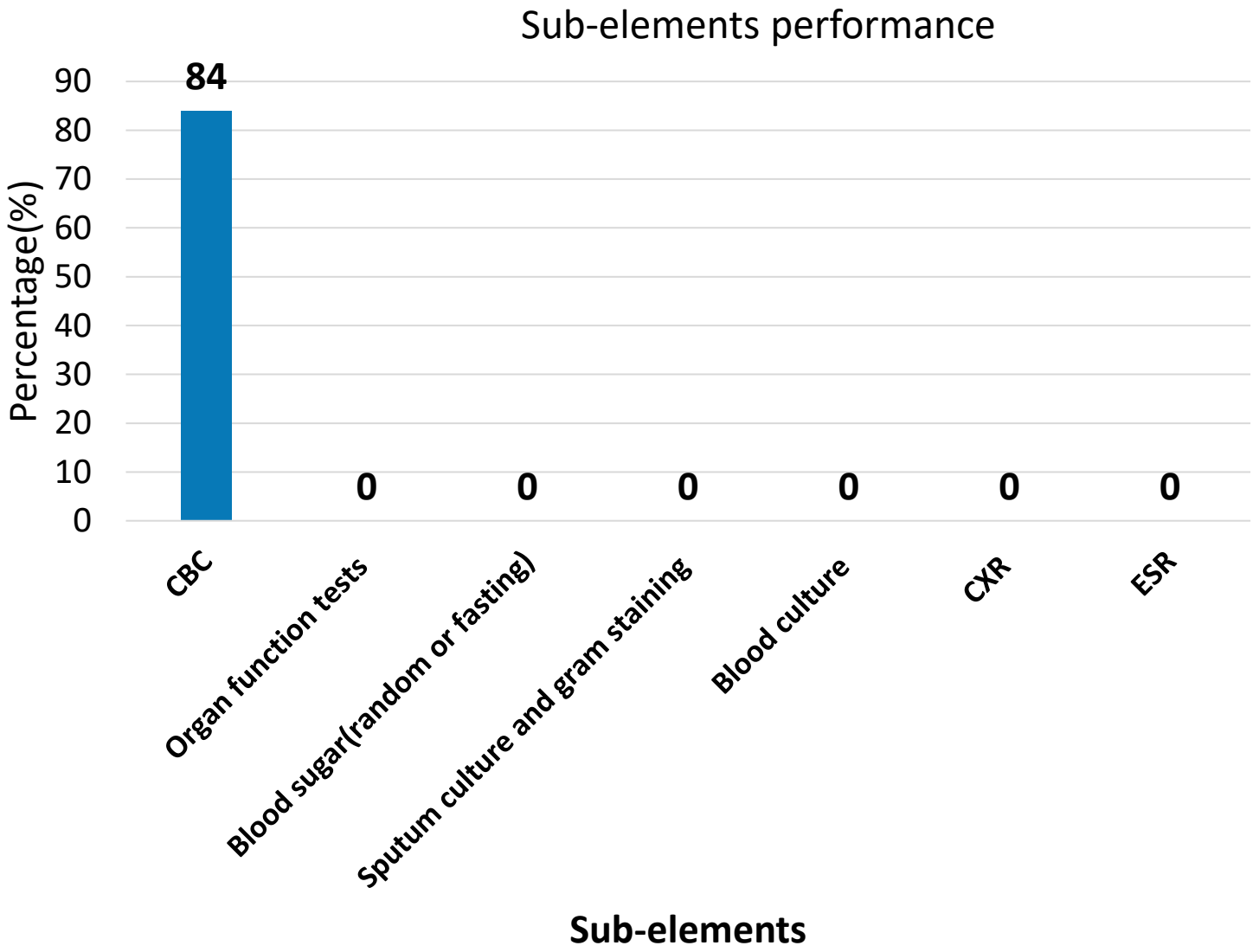
- Relevant investigations were done for only 3(16%) patients with CAP.



RELEVANT INVESTIGATIONS…Cont'd

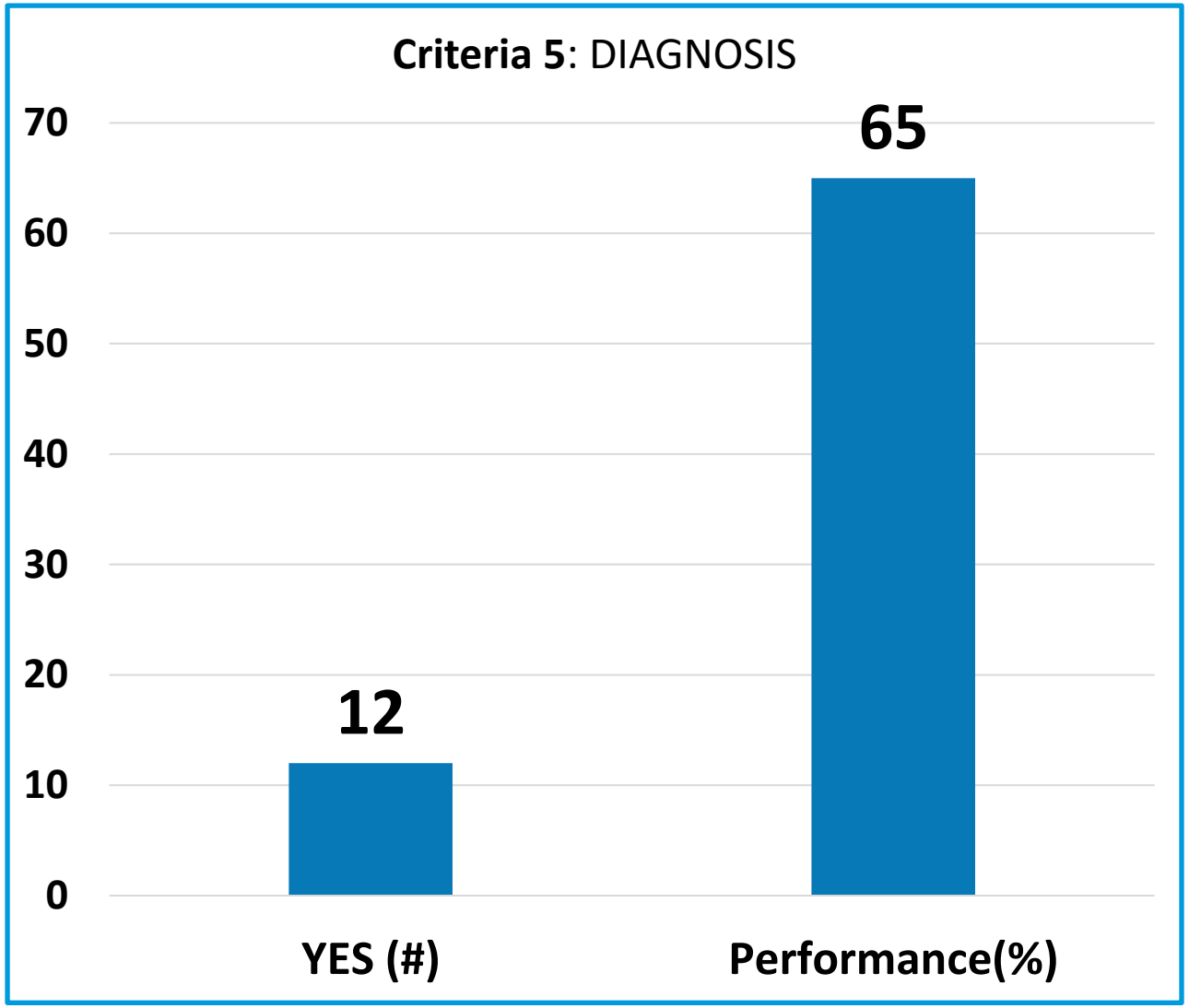
Compliance with the sub-elements showed very low performances with:

- CBC investigation was done for 16(84%) patients with CAP
- However,
  - ✓ The organ function tests,
  - ✓ Blood sugar(random or fasting),
  - ✓ Sputum culture and gram staining,
  - ✓ Blood culture,
  - ✓ CXR, and
  - ✓ ESR **were not done for all pts with CAP (0%).**



DIAGNOSIS

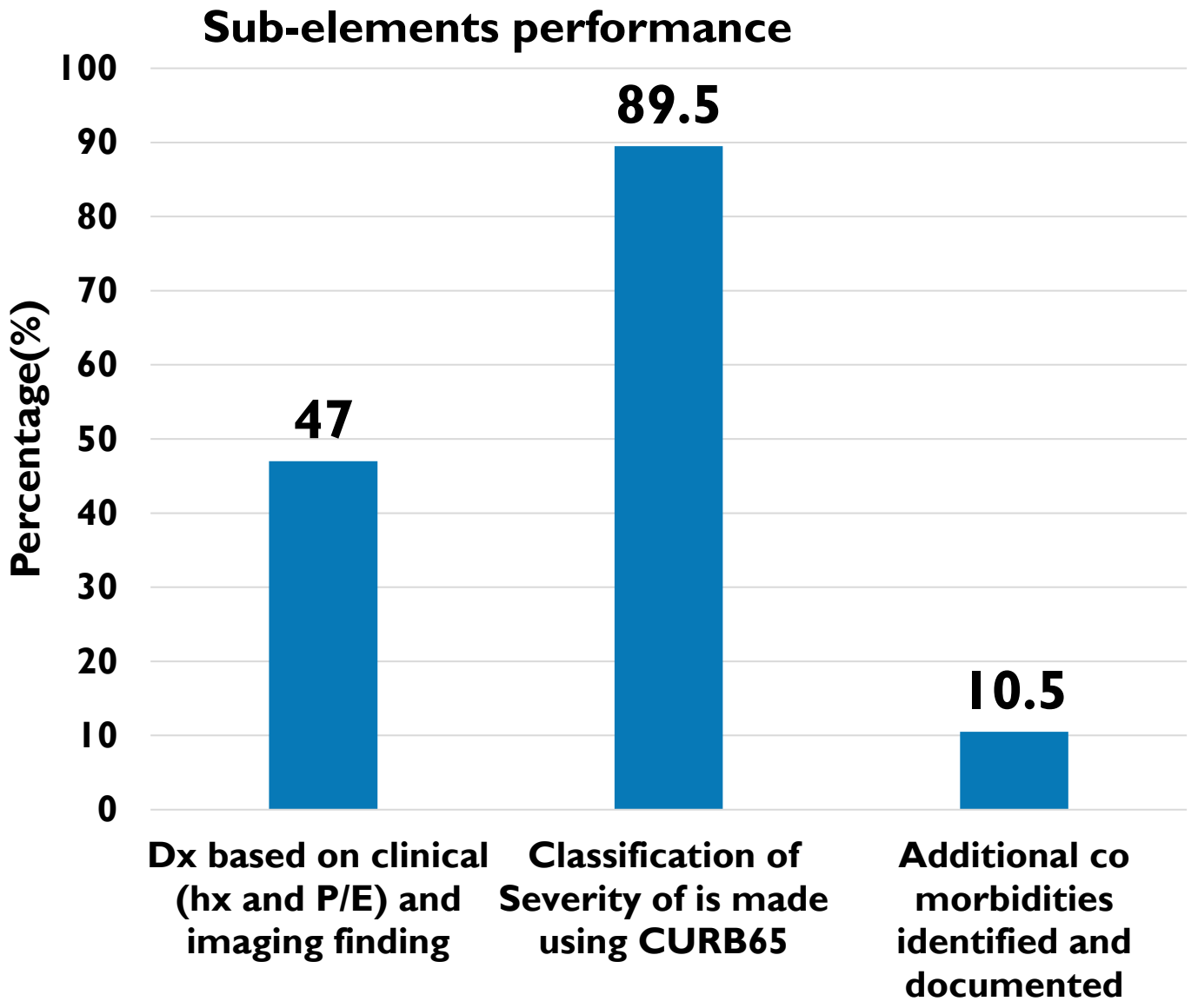
- Appropriate diagnosis of CAP is made for only 12(65%) patients.



DIAGNOSIS…Cont'd

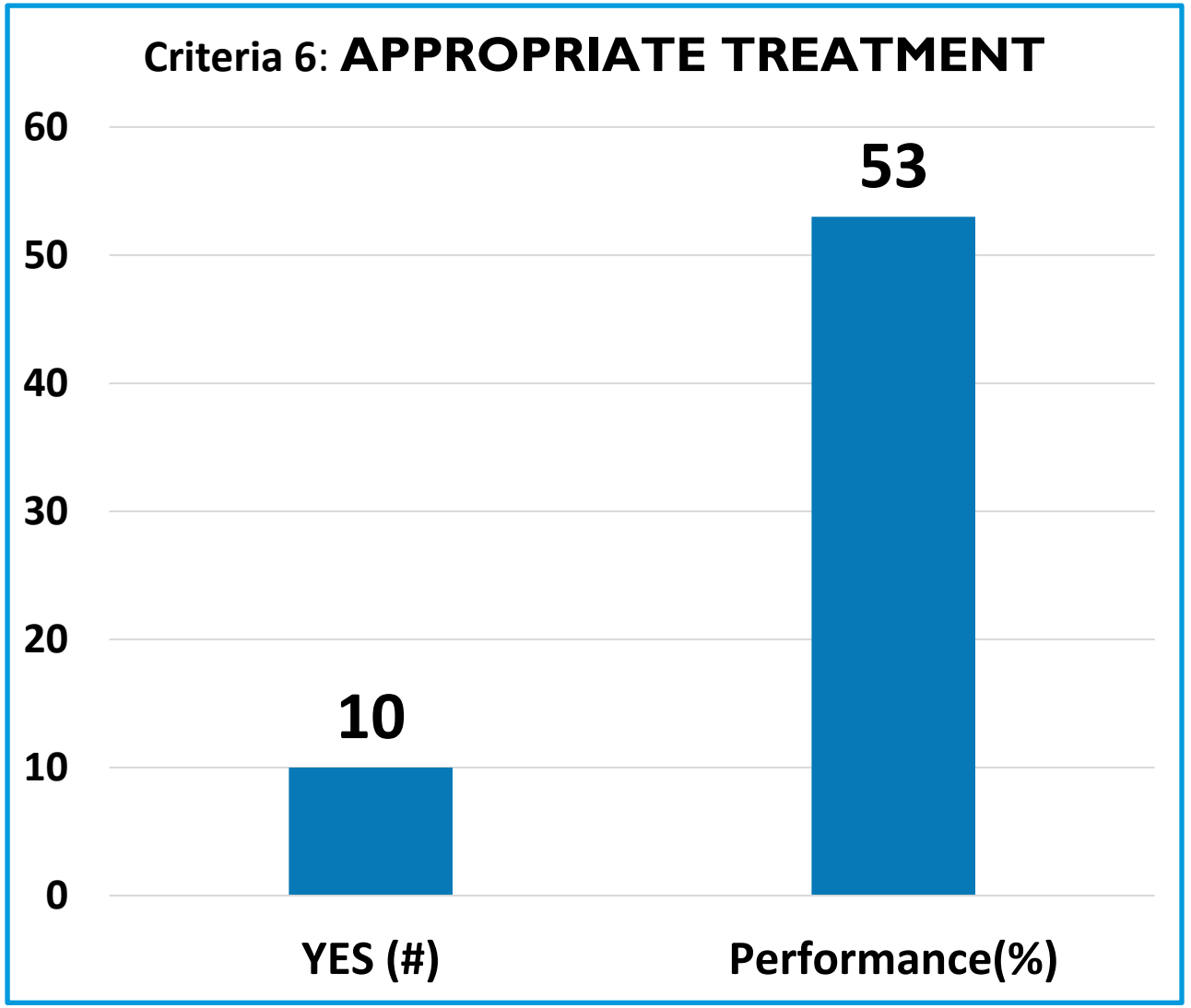
Compliance with subscales showed no agreement with:

- Pneumonia severity was graded using the **CURB65** for **17(89.5%)** patients with CAP.
- Diagnosis was made based on clinical findings (history and physical examination) and imaging for **9(47%)** patients with endemic community pneumonia.
- However,
  - ✓ Additional comorbidities were identified and documented for only 2 (10.5%) patients with endemic community pneumonia.



TREATMENT

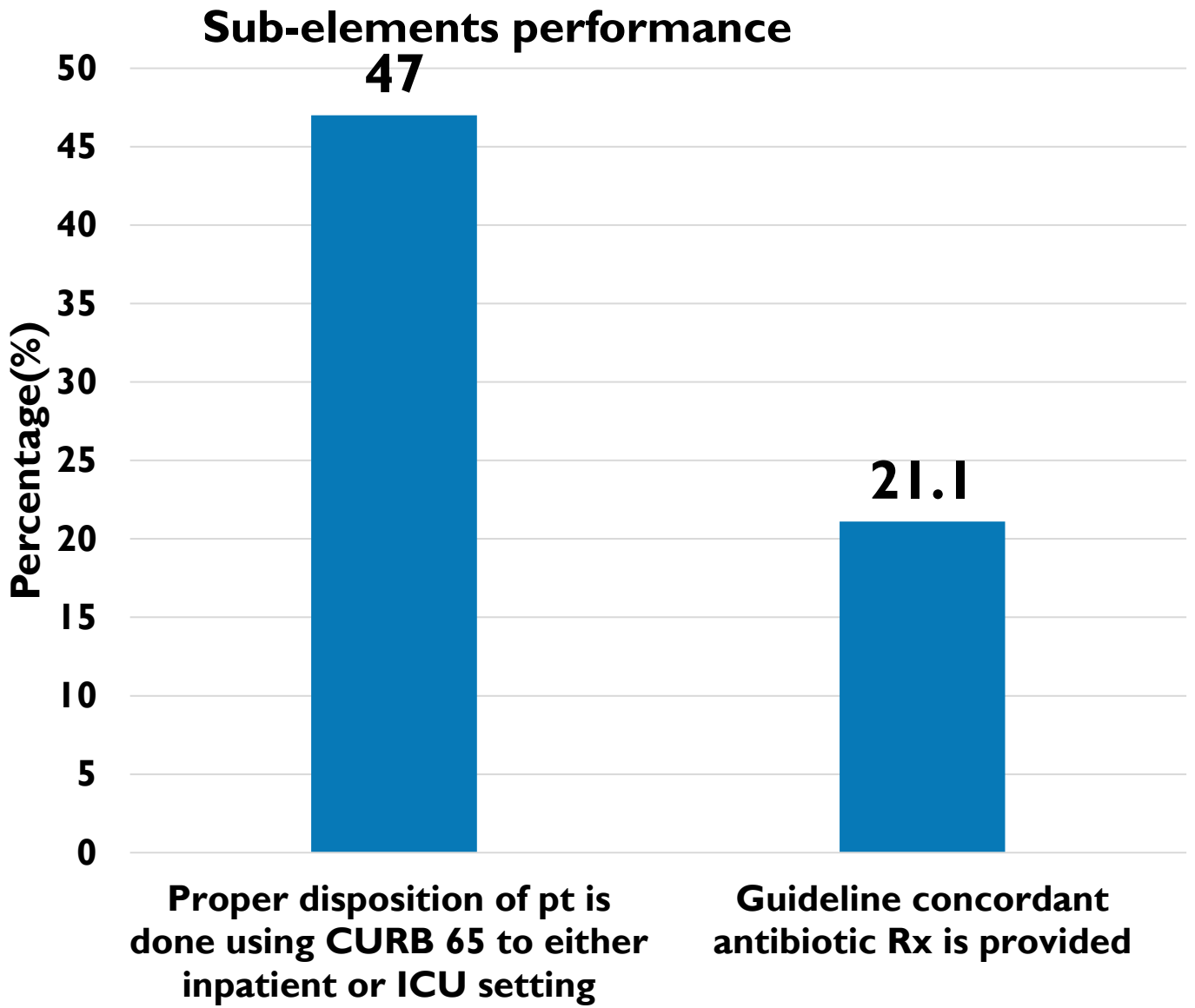
- Appropriate treatment of CAP is made for only 10(53%) patients.



TREATMENT …Cont'd

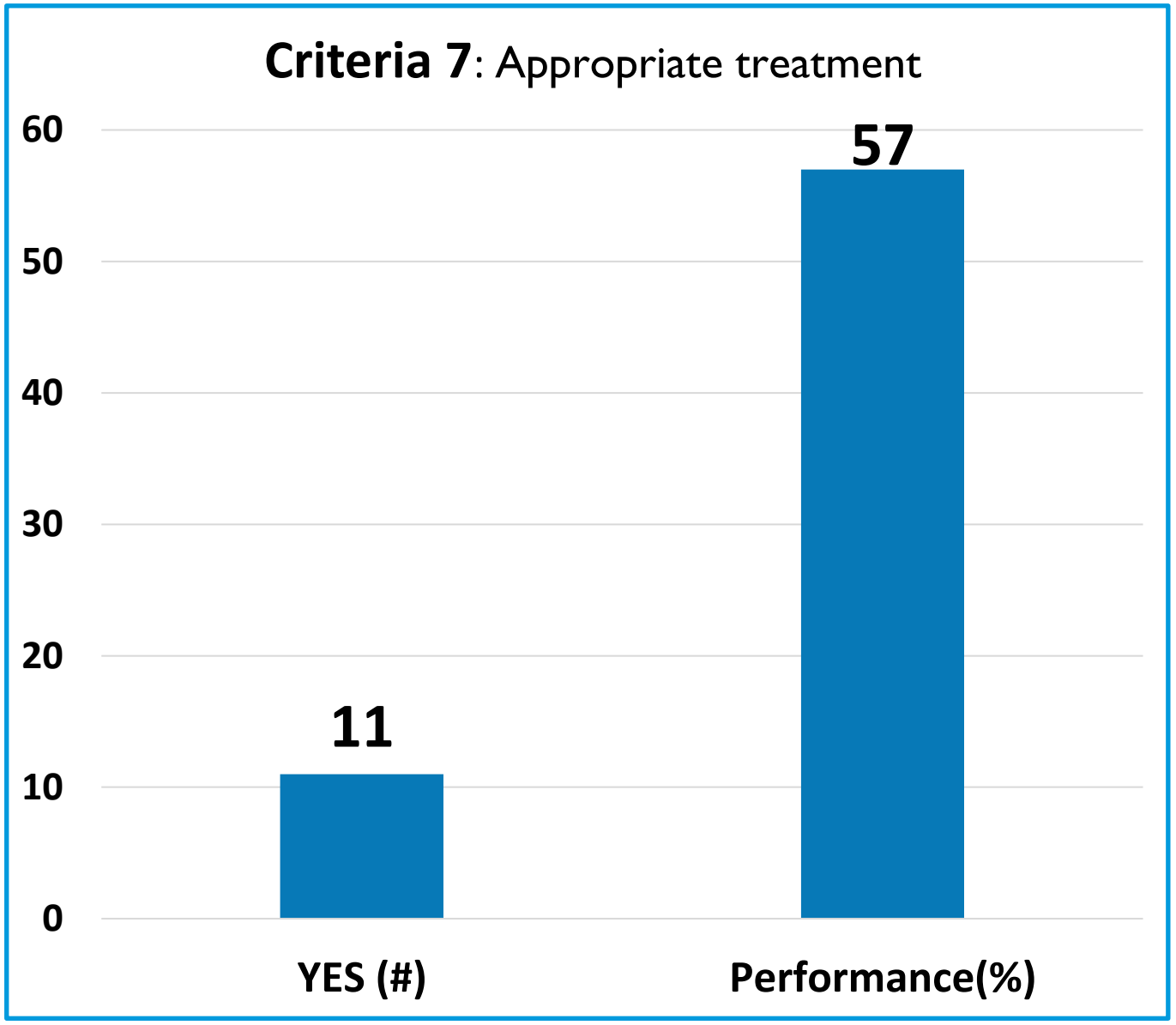
Compliance with sub-elements showed no agreement with standards:

- Proper disposition of patient is done using the **CURB65** for **16(84%)** patients with CAP.
- Guideline concordant antibiotic treatment is provided for **9(47%)** patients with endemic community pneumonia.
- However,
  - ✓ Additional comorbidities were identified and documented for only 2 (10.5%) patients with endemic community pneumonia.



MONITORING

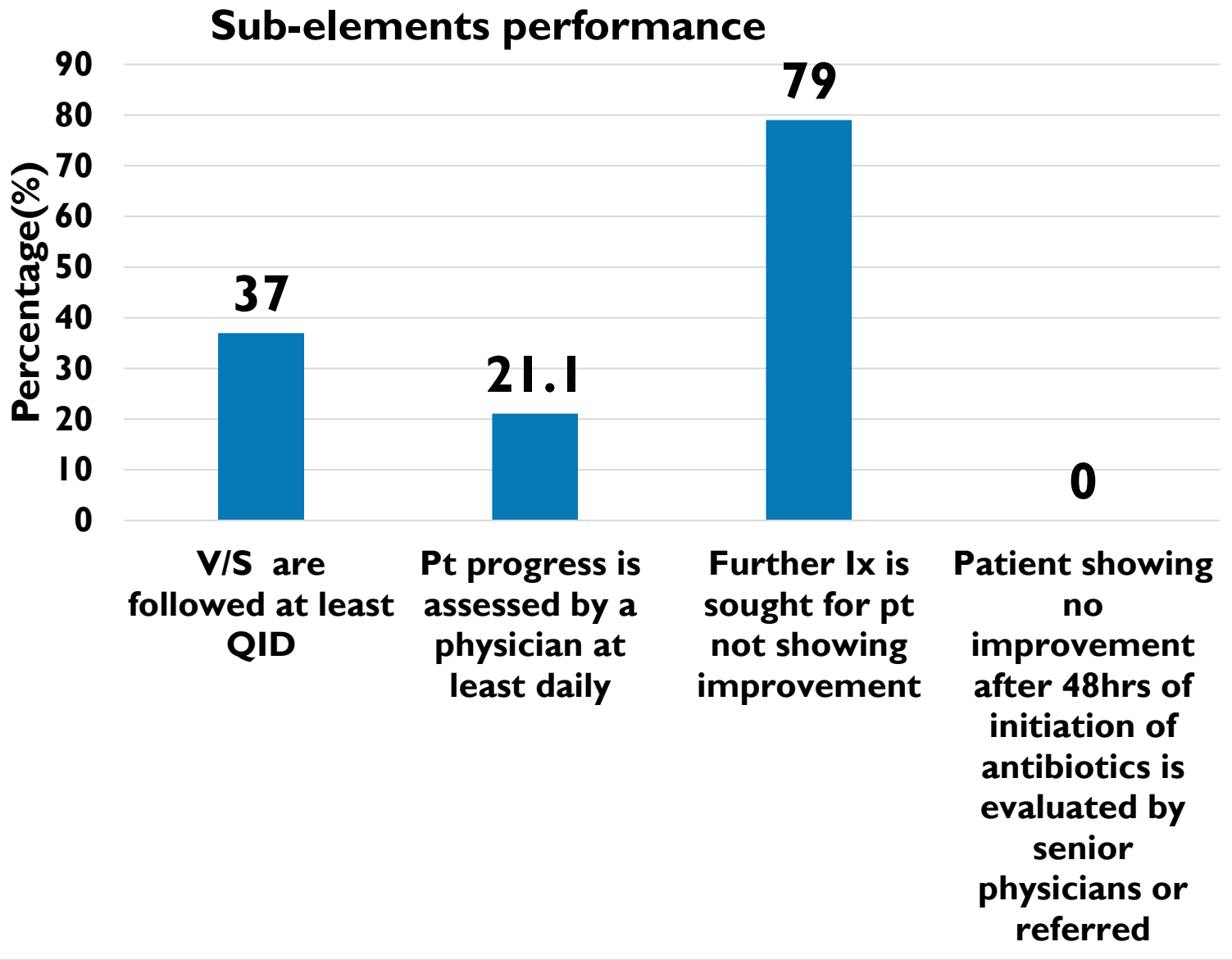
- Appropriate monitoring is done for 11(57%) of patient CAP.



MONITORING …Cont'd

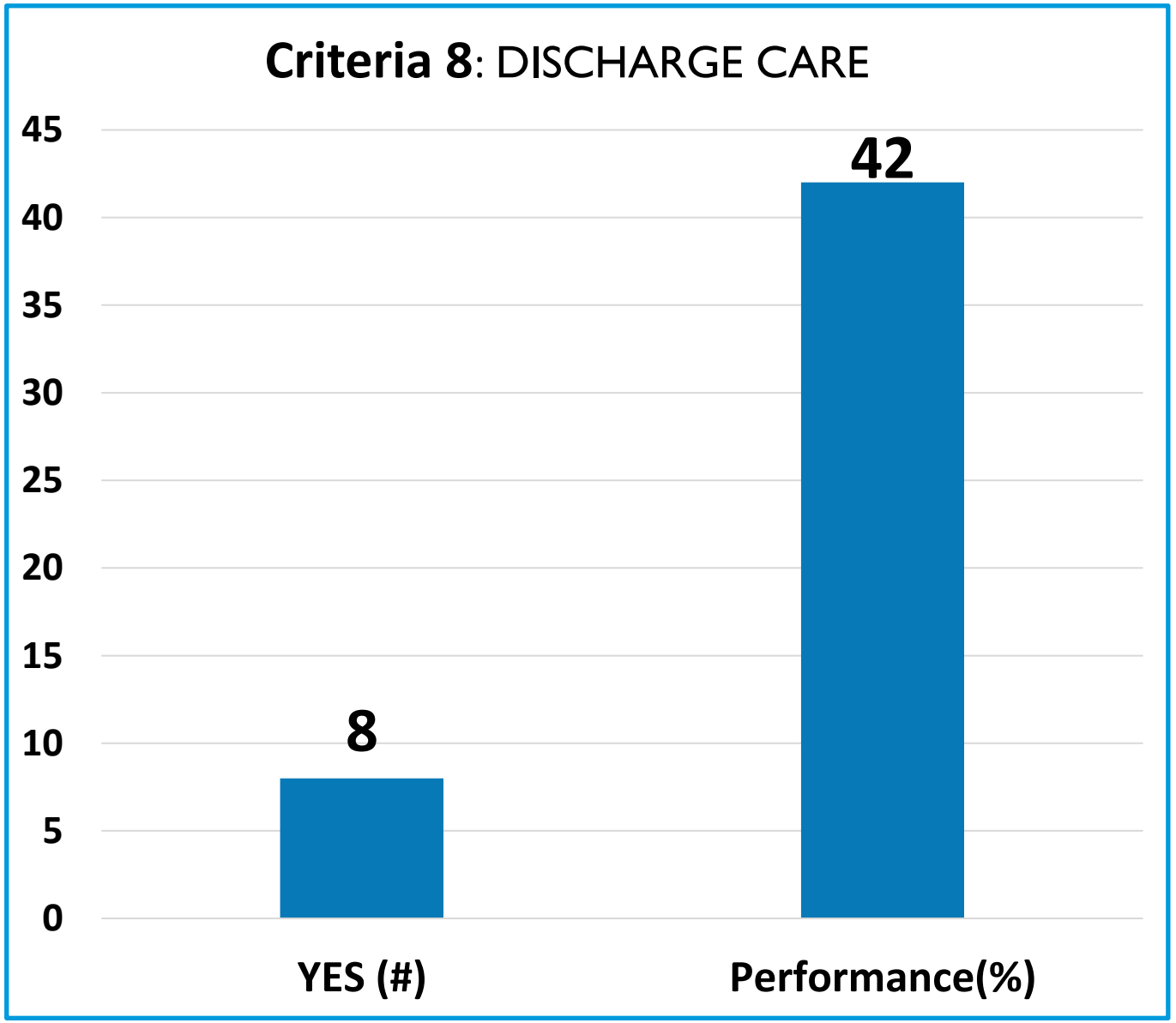
Compliance with sub-elements showed no agreement with standards:

- Vital sign are followed at least every six hour for 7(37%) of pts with CAP.
- Pt progress is assessed by a physician at least daily for only 4(21.1%) patients with CAP.
- Further Ix is sought for pt not showing improvement 15(79%) patients with CAP.
- However,
  - ✓ Patient showing no improvement after 48hrs of initiation of antibiotics is **not evaluated by senior physicians or referred**



DISCHARGE CARE

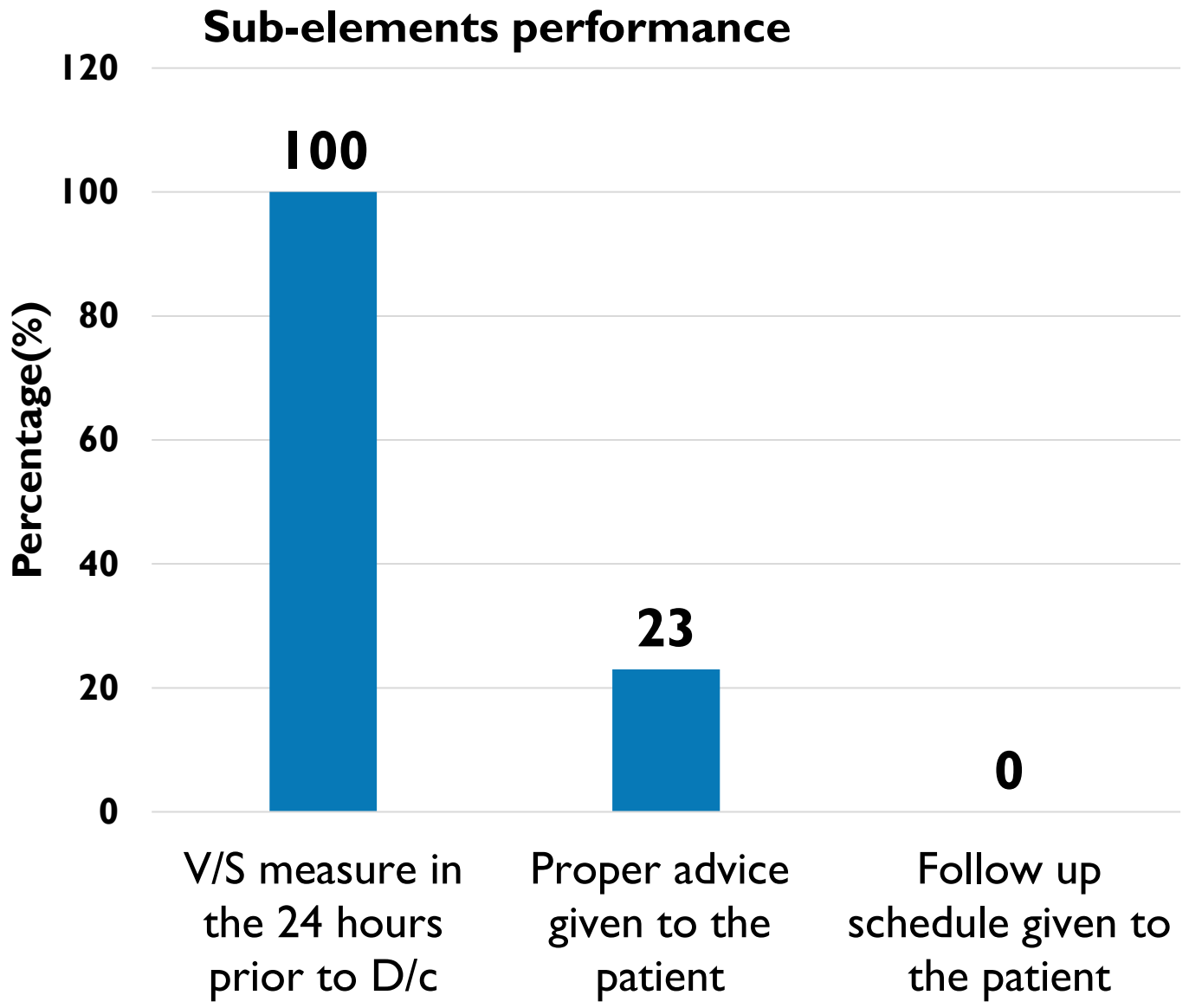
- Appropriate discharge care is provided for only 8(42%) patients with CAP.



DISCHARGE CARE …Cont'd

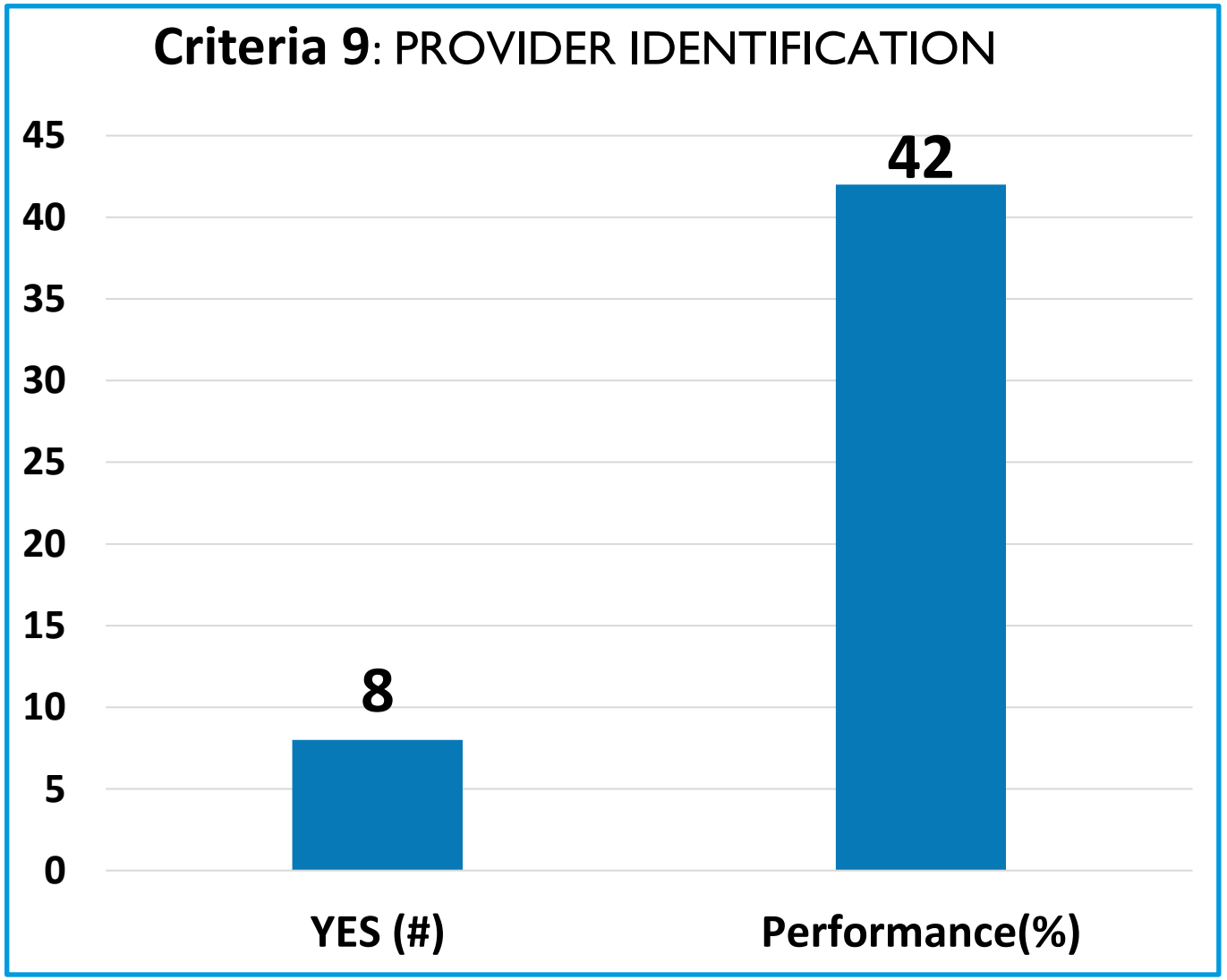
Compliance with sub-elements showed no agreement with standards:

- V/S measured in the 24hrs prior to discharge for all 19(100%) of pts with CAP.
- Proper advice was given to for only 5(23%) patients with CAP.
- However,
  - ✓ Follow up schedule was not given to all patients with CAP (0%).

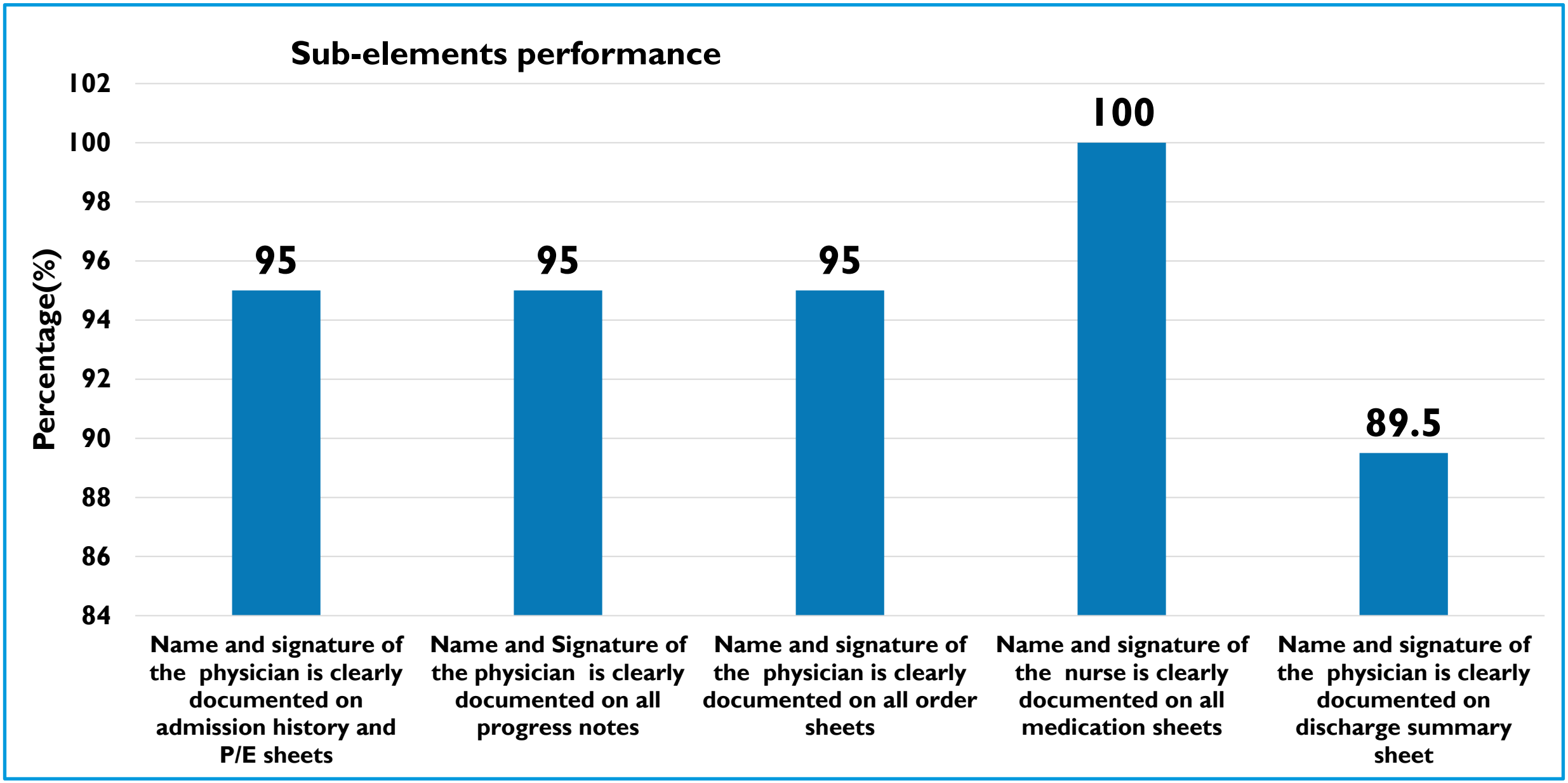


PROVIDER IDENTIFICATION

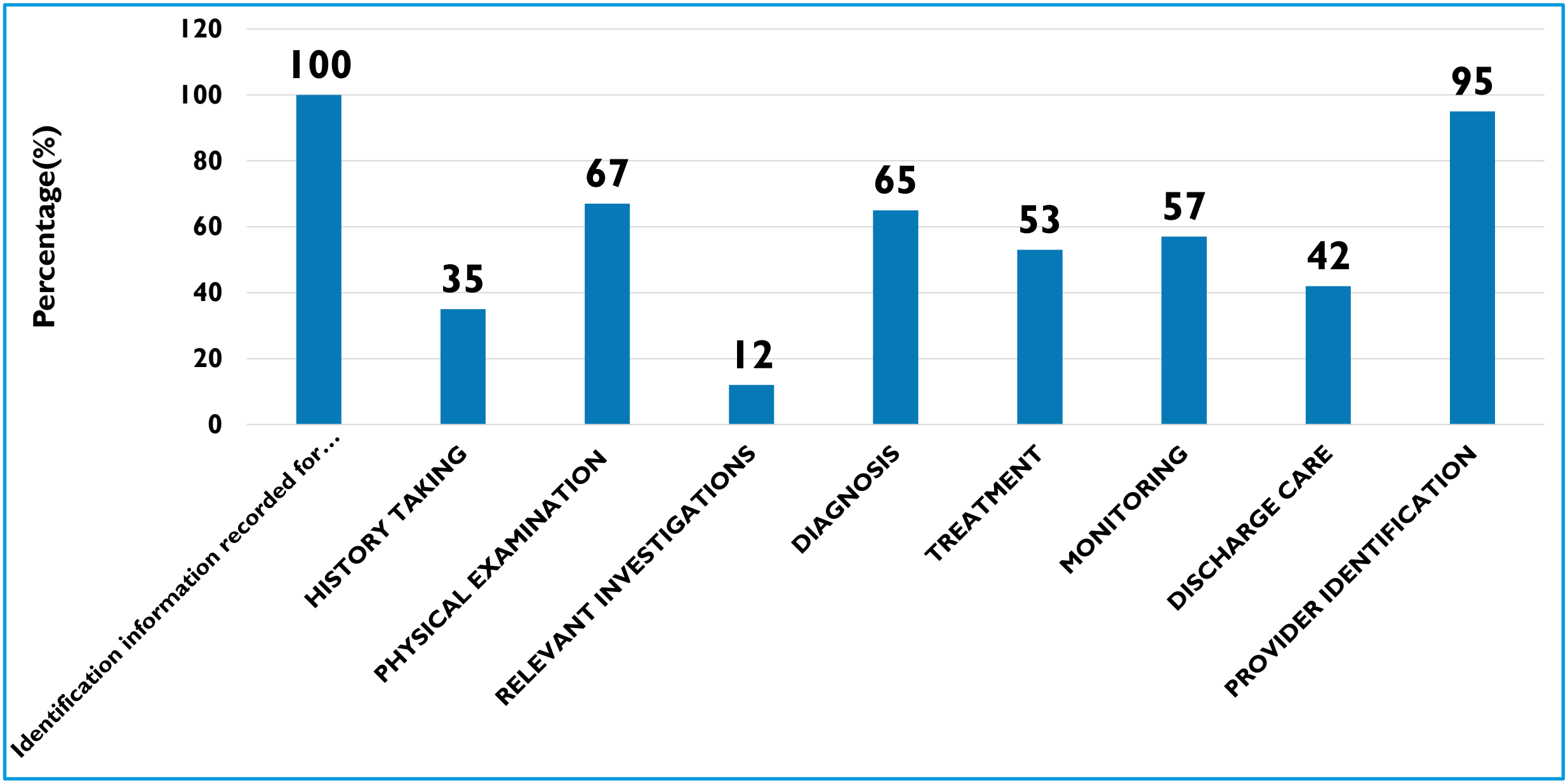
- Provider identification was documented for 18(95%) patient CAP.



PROVIDER IDENTIFICATION…Cont'd



Overall criteria performance



Discussion

The audit reveals significant gaps in the management of community-acquired pneumonia (CAP):

- History-taking compliance was low **(37%),** with **critical risk factors** and **pathogen resistance** poorly assessed.
- **Physical examination** compliance varied, with key assessments like **GCS** not performed for any patients.
- **Diagnostic investigations** were insufficient, with critical tests such as **organ function and sputum culture** largely omitted.
- Treatment compliance was suboptimal **(53%),** with notable gaps in antibiotic administration and comorbidity documentation.
- **Monitoring and discharge care** fell short of standards, with **inadequate physician assessments and follow-up planning.**

Discussion

The audit reveals significant gaps in the management of community-acquired pneumonia (CAP):

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- **Diagnostic investigations** were insufficient, with critical tests such as **organ function and sputum culture** largely omitted.
- Treatment compliance was suboptimal **(53%),** with notable gaps in antibiotic administration and comorbidity documentation.
- **Monitoring and discharge care** fell short of standards, with **inadequate physician assessments and follow-up planning.**

Recommendations

- Improve comprehensive history-taking compliance.
- Conduct full physical examinations, including GCS assessments.
- Enhance adherence to diagnostic standards, including relevant laboratory and imaging investigations.
- Ensure guideline-concordant antibiotic treatments and comorbidity documentation.
- Strengthen patient monitoring protocols and discharge planning.


Thank You
Improvement