Emergency Department Workflow Diagrams
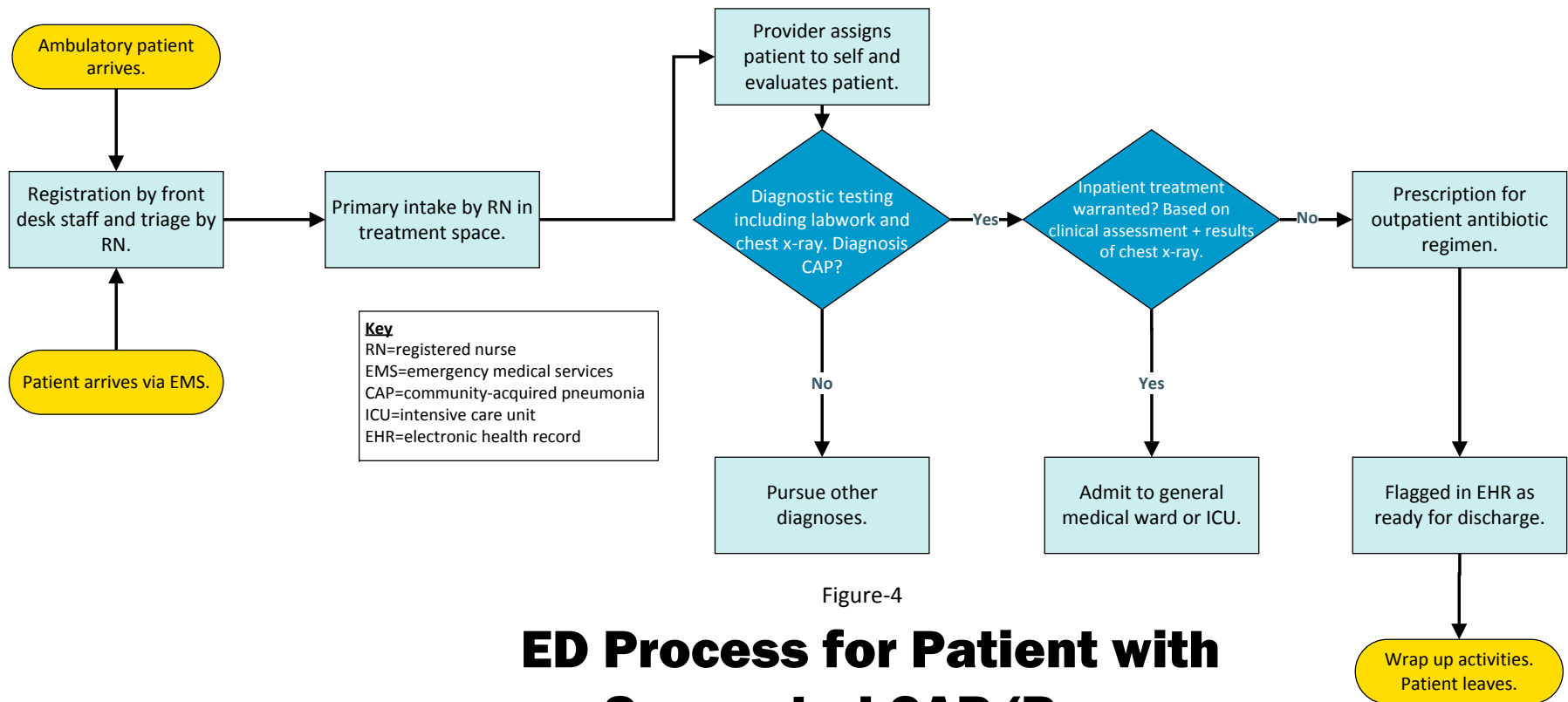
Figure-4

ED Process for Patient with Suspected CAP (Pre-Implementation)
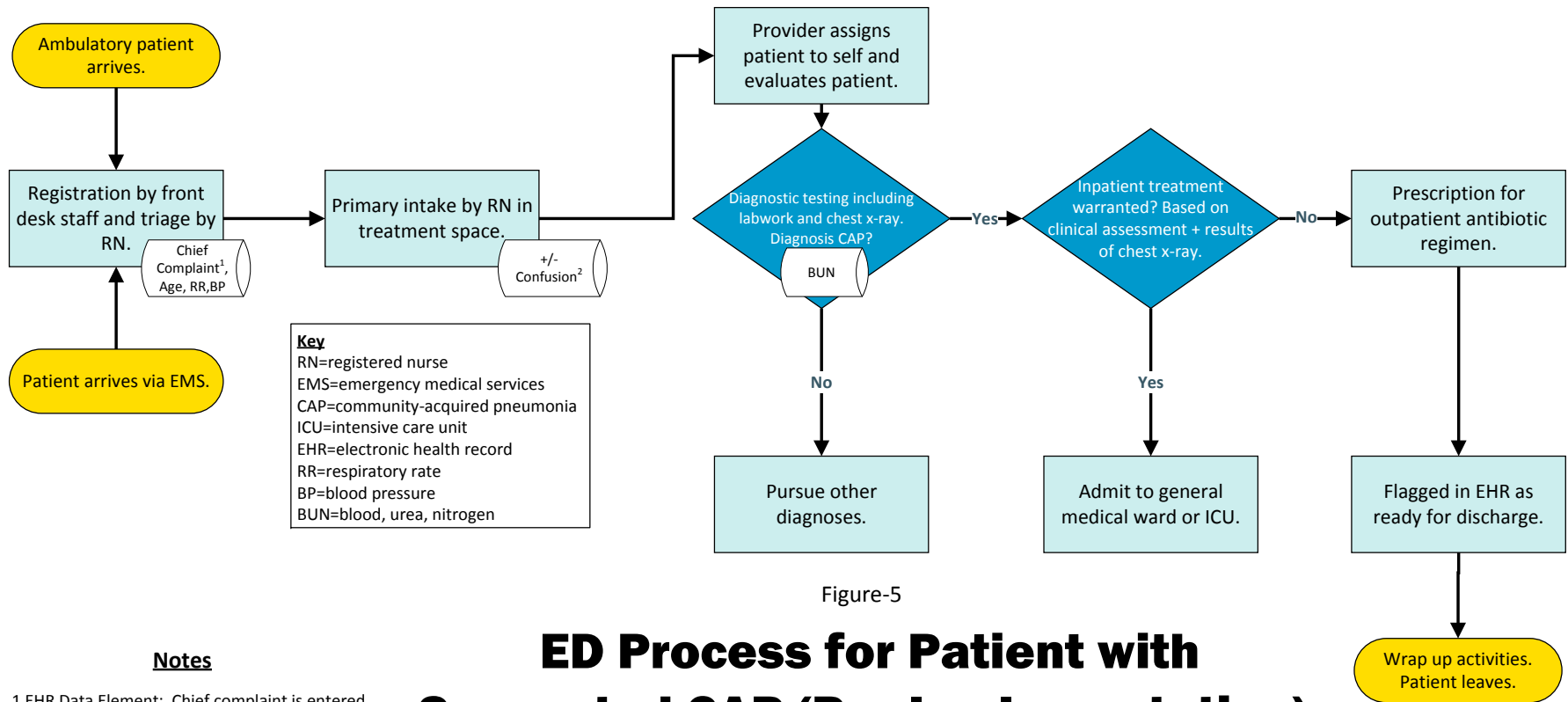
Flowchart elements:

- Ambulatory patient arrives.
- Patient arrives via EMS.
- Registration by front desk staff and triage by RN.
- Primary intake by RN in treatment space.
- Provider assigns patient to self and evaluates patient.
- Diagnostic testing including labwork and chest x-ray. Diagnosis CAP?
  - No → Pursue other diagnoses.
  - Yes → Inpatient treatment warranted? Based on clinical assessment + results of chest x-ray.
    - Yes → Admit to general medical ward or ICU.
    - No → Prescription for outpatient antibiotic regimen.
- Prescription for outpatient antibiotic regimen. → Flagged in EHR as ready for discharge. → Wrap up activities. Patient leaves.

Key
RN=registered nurse
EMS=emergency medical services
CAP=community-acquired pneumonia
ICU=intensive care unit
EHR=electronic health record

Figure-5

ED Process for Patient with Suspected CAP (Pre-Implementation) with Data Elements

Ambulatory patient arrives.

Patient arrives via EMS.

Registration by front desk staff and triage by RN.
Chief Complaint[1], Age, RR, BP

Primary intake by RN in treatment space.
+/- Confusion[2]

Provider assigns patient to self and evaluates patient.

Diagnostic testing including labwork and chest x-ray. Diagnosis CAP?
BUN

— Yes →

Inpatient treatment warranted? Based on clinical assessment + results of chest x-ray.

— No →

Prescription for outpatient antibiotic regimen.

No ↓ **Pursue other diagnoses.**

Yes ↓ **Admit to general medical ward or ICU.**

Flagged in EHR as ready for discharge.

Wrap up activities. Patient leaves.

Key
RN=registered nurse
EMS=emergency medical services
CAP=community-acquired pneumonia
ICU=intensive care unit
EHR=electronic health record
RR=respiratory rate
BP=blood pressure
BUN=blood, urea, nitrogen

Notes

1 EHR Data Element: Chief complaint is entered either as free text (unstructured) or selected from a drop down list (structured).
2 EHR Data Element: Confusion may be selected (structured data) by intake nurse in disability or fall risk sections, unclear how often this is actually done.
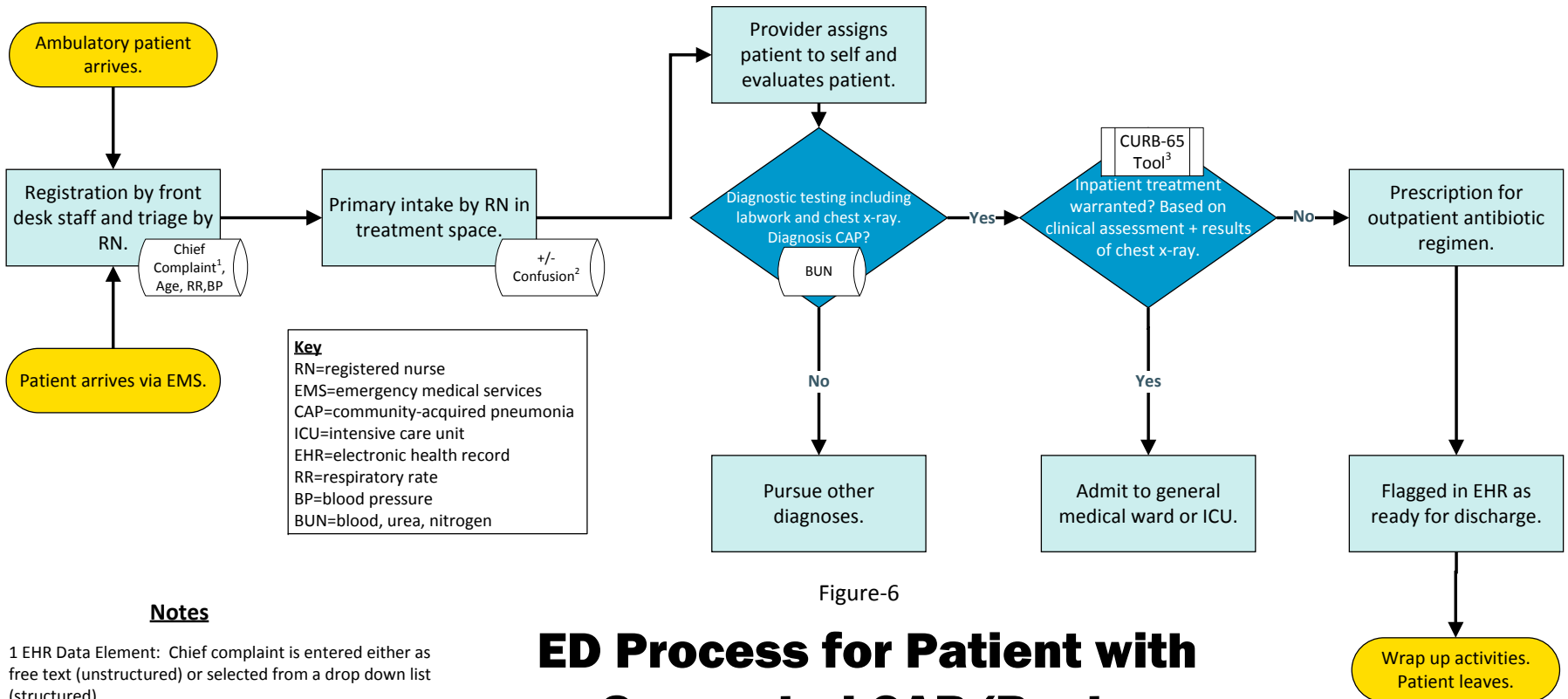
Ambulatory patient arrives.

Registration by front desk staff and triage by RN.

Chief Complaint[1], Age, RR,BP

Patient arrives via EMS.

Primary intake by RN in treatment space.

+/- Confusion[2]

Provider assigns patient to self and evaluates patient.

Diagnostic testing including labwork and chest x-ray. Diagnosis CAP?

BUN

— Yes →

— No ↓

Pursue other diagnoses.

CURB-65 Tool[3]

Inpatient treatment warranted? Based on clinical assessment + results of chest x-ray.

— No →

— Yes ↓

Admit to general medical ward or ICU.

Prescription for outpatient antibiotic regimen.

Flagged in EHR as ready for discharge.

Wrap up activities. Patient leaves.

Key
RN=registered nurse
EMS=emergency medical services
CAP=community-acquired pneumonia
ICU=intensive care unit
EHR=electronic health record
RR=respiratory rate
BP=blood pressure
BUN=blood, urea, nitrogen

Figure-6

ED Process for Patient with Suspected CAP (Post-Implementation)

Notes

1 EHR Data Element: Chief complaint is entered either as free text (unstructured) or selected from a drop down list (structured).
2 EHR Data Element: Confusion may be selected (structured data) by intake nurse in disability or fall risk sections, unclear how often this is actually done.
3 CURB-65 Tool is activated as an interruptive alert to provider