

## **Business Understanding**

### **Part 1**

#### **Statement of the Business Problem:**

The objective of this project is to document the process as is for two common emergency surgeries: cholecystectomy and appendectomy. The documentation will provide a detailed understanding of the current workflow, processes, and data needs associated with these surgical procedures within the emergency department.

Key aspects of the current process for each surgery include:

- Admission: Patients presenting with symptoms requiring emergency cholecystectomy or appendectomy enter the emergency department and undergo verification by the admitting clerk.
- Waiting Room: Patients wait in the emergency waiting room until they are seen by the triage nurse. The wait time varies based on the workload and the urgency of the patient's condition.
- Triage Assessment: Triage nurses conduct assessments, including vital readings and symptom inquiries, to determine the urgency of each patient's situation.
- Doctor Examination: Patients are examined by emergency doctors who may order diagnostic tests such as blood work, x-rays, and ultrasounds specific to the suspected condition (e.g., ultrasound for cholecystitis).
- Test Requests: Depending on the doctor's evaluation, various tests may be requested to confirm the diagnosis and assess the severity of the condition.
- Surgeon Consultation: Surgeons review test results and make decisions regarding the need for emergency surgery (cholecystectomy or appendectomy) based on the patient's condition.
- Emergency Room Wait: Patients may wait again in the emergency room after tests and consultations, prioritized based on their condition and surgical urgency.
- Operating Room Preparation: Patients prioritized for emergency surgery undergo preparation for the operating room, including time for room setup and anesthesia administration.
- Surgery: Surgical procedures for cholecystectomy or appendectomy are performed with timestamps for the start and completion of the operation, as well as for cleaning and discharge.
- Anesthesia Recovery Unit: Post-surgery, patients are monitored in the anesthesia recovery unit before being transferred to a different unit for further care.

This documentation provides a comprehensive overview of the current state of the emergency department's patient journey for cholecystectomy and appendectomy cases, including all steps and waiting times involved. This understanding will serve as a basis for further analysis specific to these common emergency surgeries.

#### **Process Map: (attached as a separate file)**

The process map will visually represent the sequential steps involved in the patient journey from admission to discharge, specifically focusing on the workflow related to cholecystectomy and appendectomy procedures within the emergency department and operating room.

**Stakeholder List: (attached as a separate file)**

The stakeholder list will identify key individuals and teams involved in the emergency surgery process, including healthcare providers (e.g., admitting clerks, triage nurses, emergency doctors, surgeons, anesthesiologists) and support staff (e.g., administrative personnel, operating room staff). This list will help ensure effective communication and collaboration among stakeholders throughout the project.

By documenting the process as is, we will gain valuable insights into the current state of emergency surgeries and lay the groundwork for future data analysis.

My role in this project: As I am working alone in this project, I will work as a Business and Data Analyst.

As a Business Analyst, I will lead the discussion with stakeholders, asks probing questions to gather requirements.

As a Data Analyst, I will focus on understanding data needs, sources, and potential challenges in data collection and analysis.