

Case Studies

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The Problem Statement

- Accountability
 - Who is responsible for the system performance?
 - Who is responsible for individual performance?
- Punishment
 - Where does it work?
 - When is it needed?

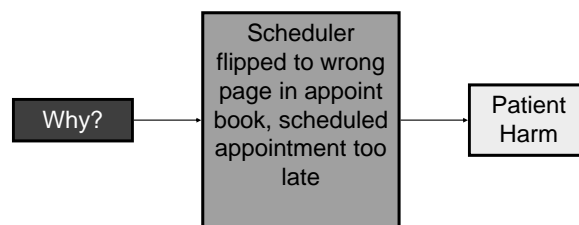
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Scenario 1

A near-term pregnant patient is told by her doctor that she needs to return to the clinic within one week for her next prenatal check up. The scheduler was new to the job and made a mistake with the scheduling system. Flipping to the wrong week, the scheduler inadvertently booked the patient for an appointment in two weeks. Sadly, before her scheduled appointment the mother goes into labor and the baby is stillborn. The physician angrily tells the clinic manager that the baby might have lived if the mother's appointment had been scheduled correctly.

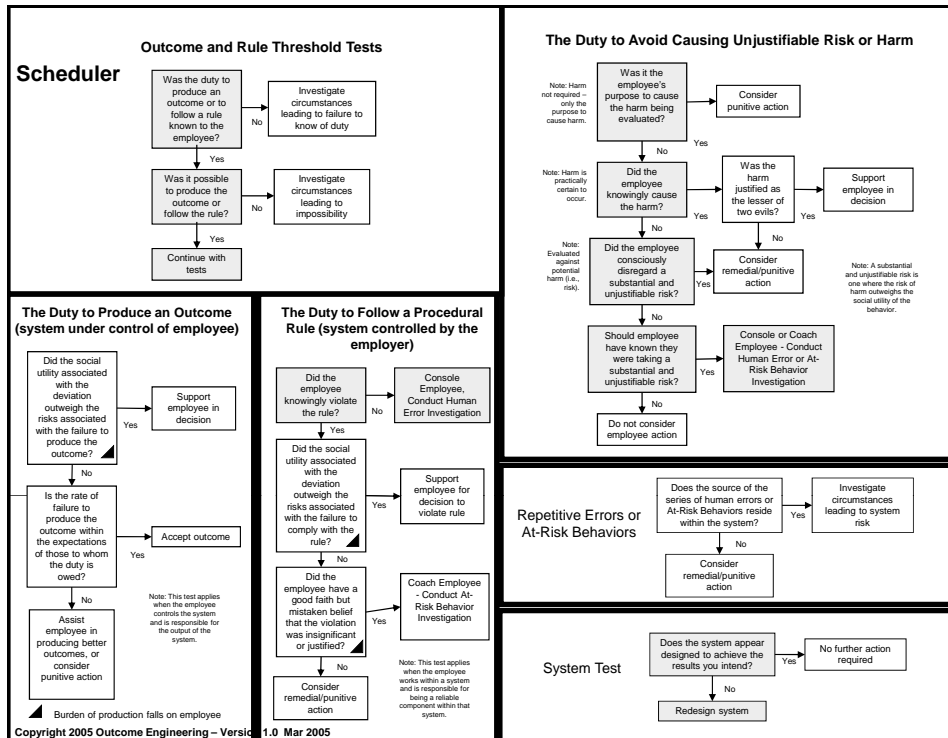
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Scenario 1



- The Undesired Outcome
- Human Error
- Behavioral Choice
- A Cause of the Human Error
- A Cause of the Behavioral Choice

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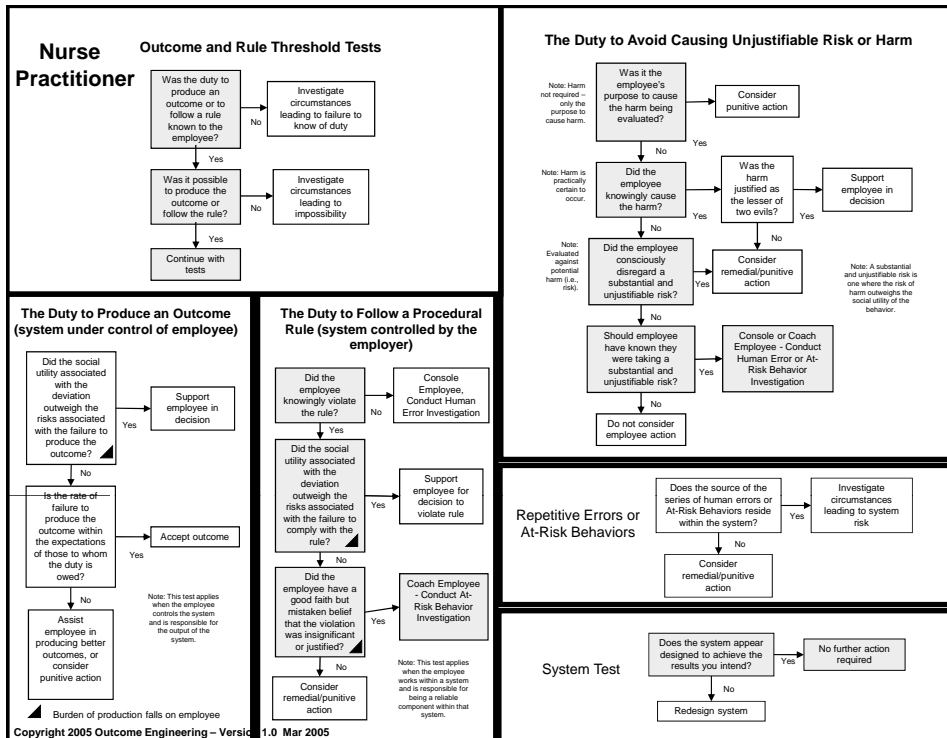
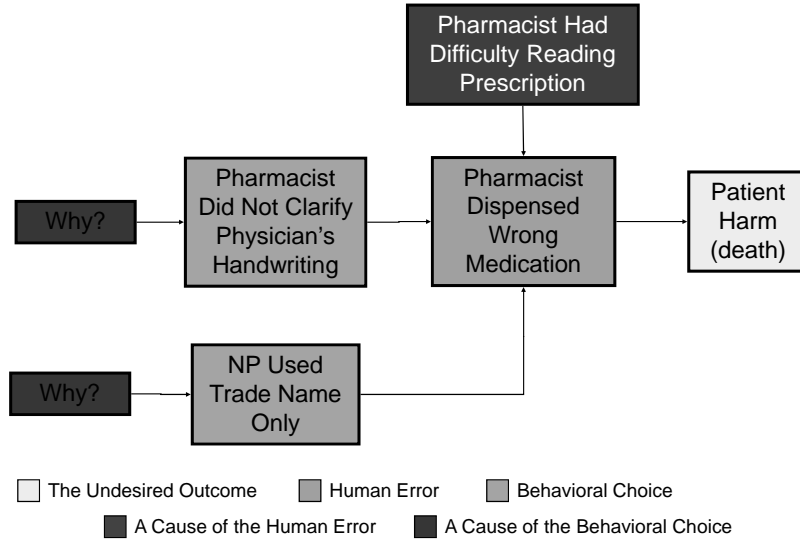


Scenario 2

A patient with chronic heart failure saw his nurse practitioner in a rural hospital outpatient clinic. The nurse practitioner changed his diuretic to Zaroxolyn (metolazone) but wrote only the trade name, Zaroxolyn, on the prescription. The pharmacist had difficulty reading the nurse practitioner's handwriting and dispensed Zyprexa (olanzapine), an antipsychotic medication that causes drowsiness. After a few days the patient's heart failure worsened to the point that he had to be admitted to the hospital for shortness of breath. He suffered a cardiac arrest and died. The mistake came to light in a discussion between the patient's daughter and the nurse practitioner.

An investigation revealed that pharmacy policies stated that physicians and nurse practitioners must always include the generic name on prescriptions. Policies also stated that pharmacists must call physicians and nurse practitioners to clarify prescriptions when their handwriting is difficult to read.

Scenario 2



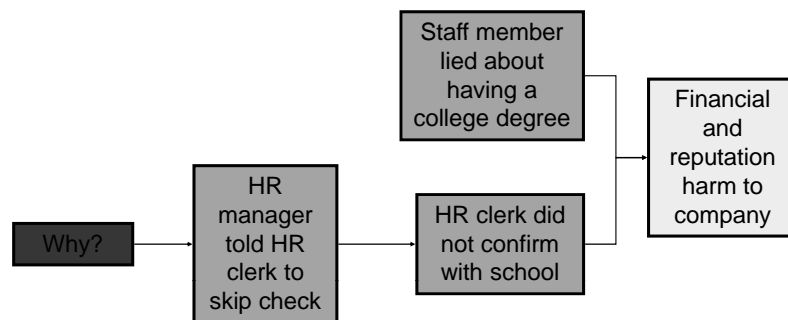
Scenario 3

A new clinical manager is found to have lied on his resume. He did not have the college degree that he showed on his resume.

An investigation of why this oversight has occurred found that a human resources clerk did not do the required background check. The human resources manager had never had a candidate lie about a college degree in their 8 years of managing, and simply told his overworked clerk to skip the check. Corporate policies require that the check be completed. Both the clerk and the manager were aware of the policy.

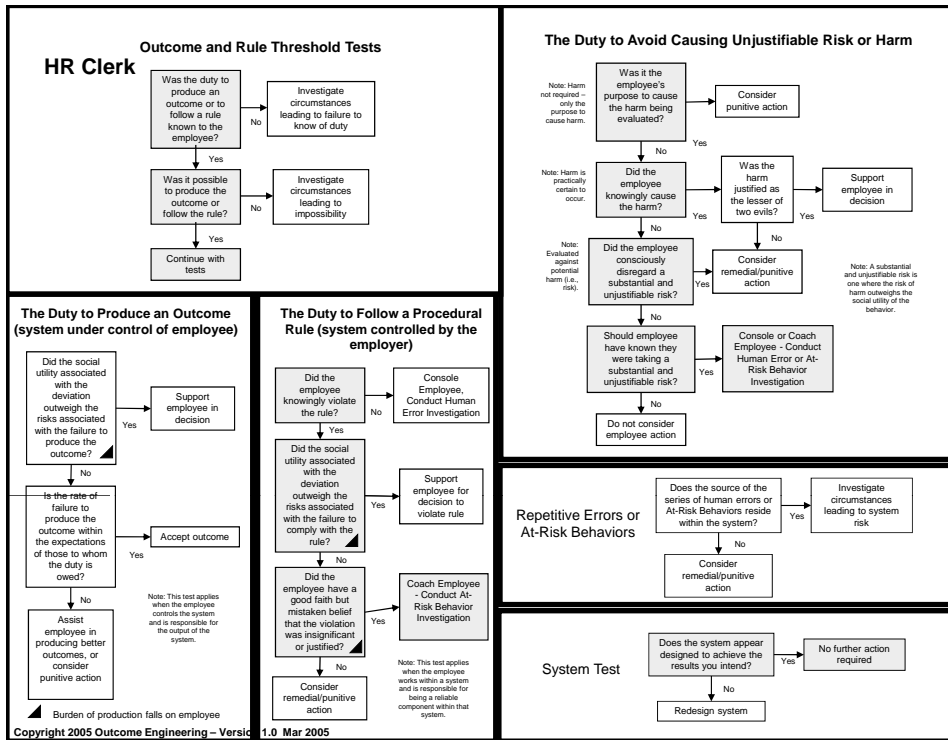
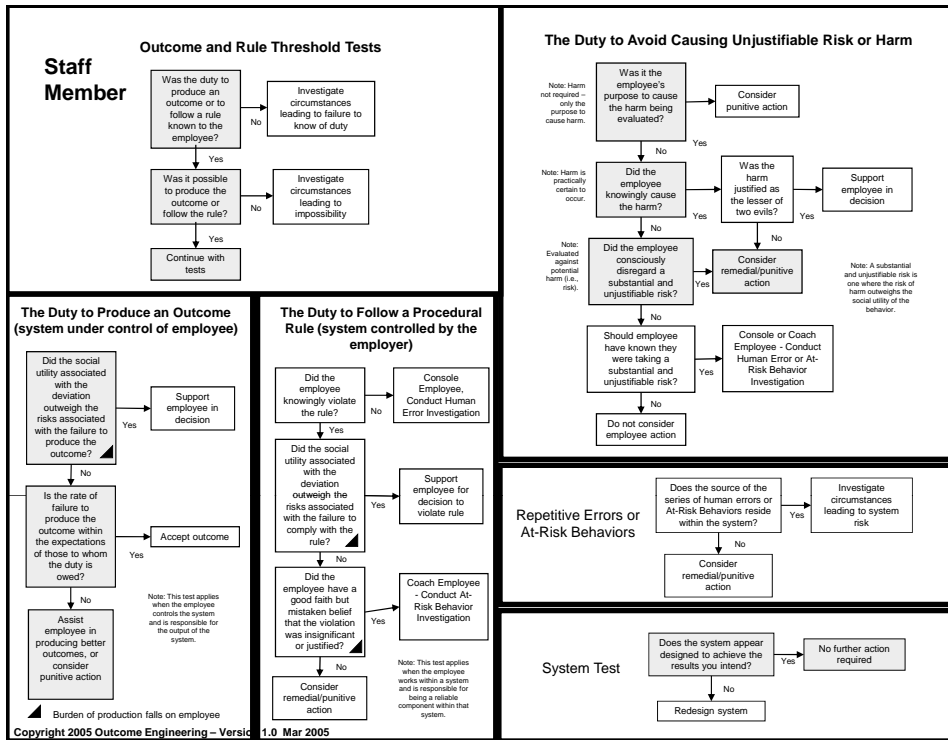
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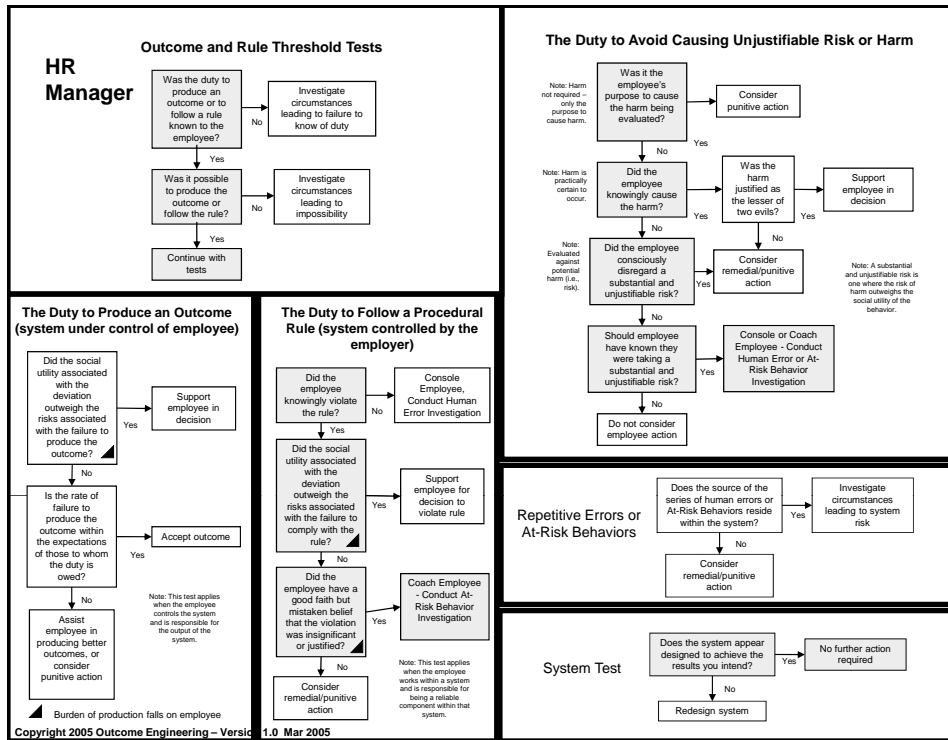
Scenario 3



- The Undesired Outcome Human Error Behavioral Choice
 A Cause of the Human Error A Cause of the Behavioral Choice

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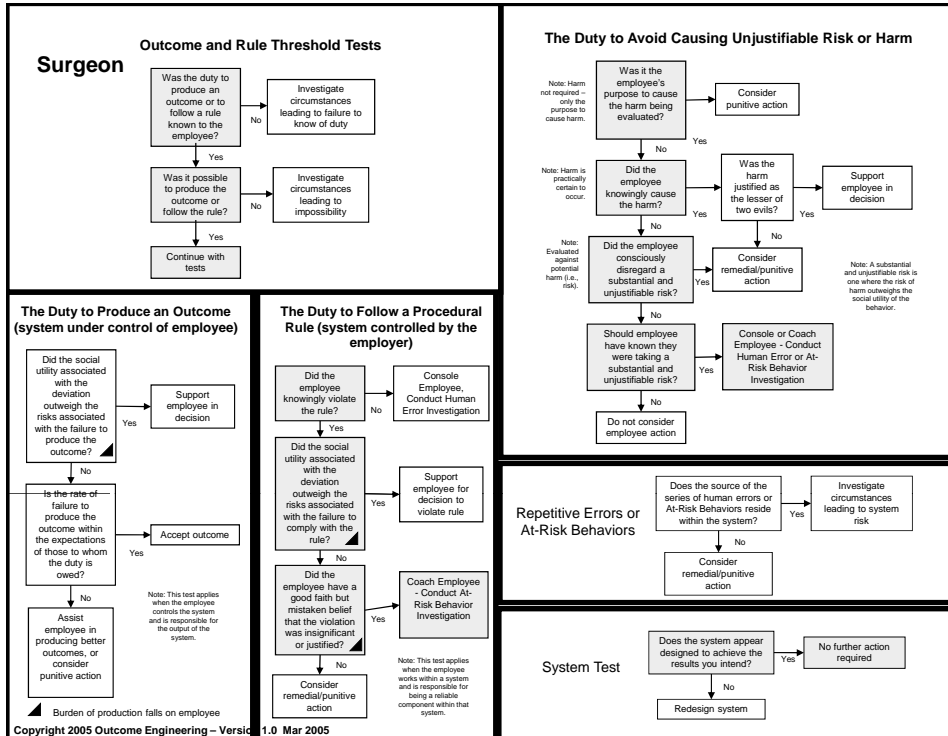
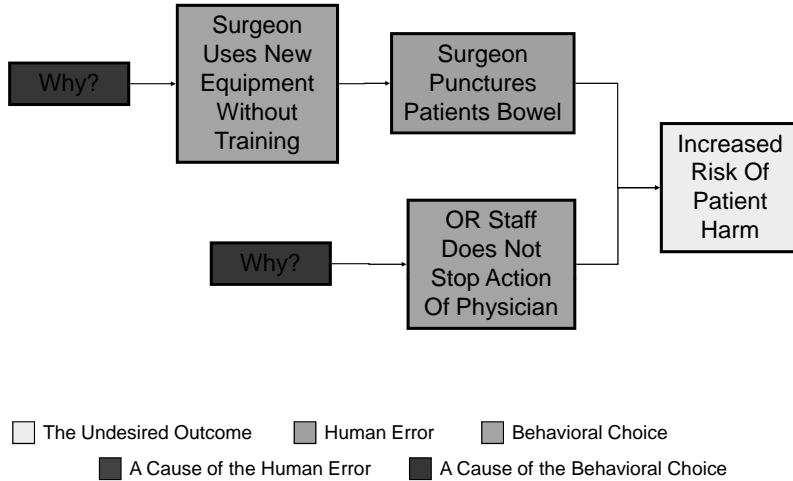


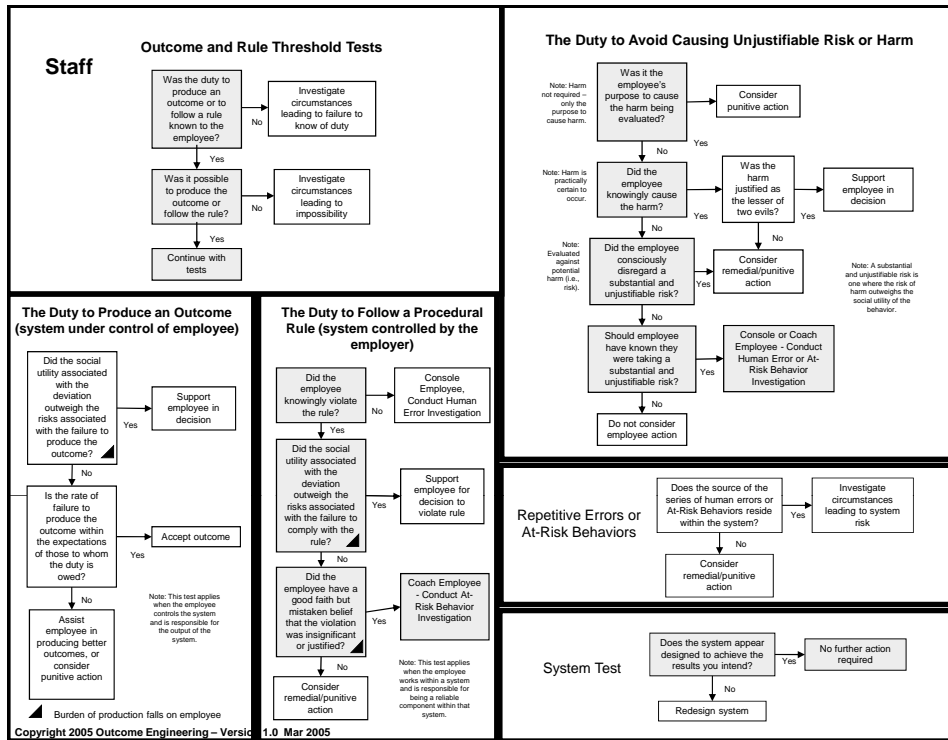


Scenario 4

An experienced surgeon sees a new piece of equipment at a conference. He buys it and uses it for a procedure at his first opportunity. He has never used the equipment before and accidentally punctures the patient's bowel. The surgeon repairs the bowel and the patient recovers fully. The OR has a policy that says new equipment will be officially approved and training will be conducted prior to its use. None of the OR staff spoke up when they saw that the physician was about to use equipment that had not been approved.

Scenario 4

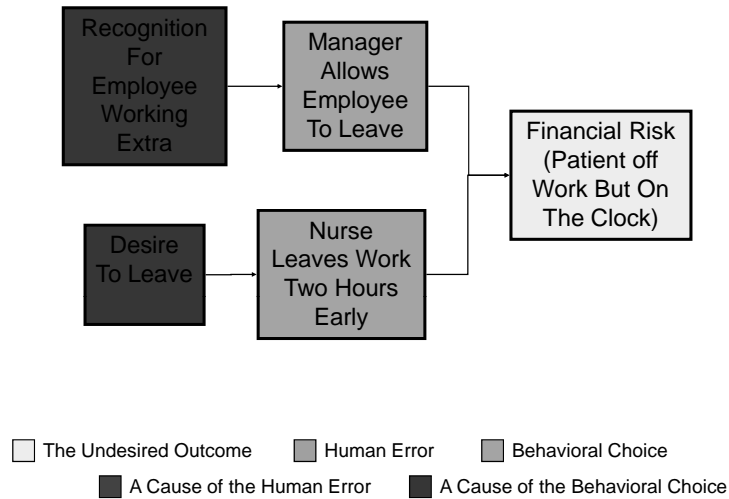




Scenario 5

A manager, in recognition of a nurse's voluntary unpaid overtime during a time of crisis, allowed a nurse to leave 2 hours early on Friday afternoon. In violation of company policy, the manager clocked the nurse out at end of the day – 2 hours after the nurse had left.

Scenario 5



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Nurse

Outcome and Rule Threshold Tests

Was the duty to produce an outcome or to follow a rule known to the employee?

Yes → Investigate circumstances leading to failure to know of duty

No → Continue with tests

Was it possible to produce the outcome or follow the rule?

Yes → Investigate circumstances leading to impossibility

No → Continue with tests

The Duty to Avoid Causing Unjustifiable Risk or Harm

Was the employee's purpose to cause the harm being evaluated?

Yes → Consider punitive action

No → Did the employee knowingly cause the harm?

Yes → Was the harm justified as the lesser of two evils? → Support employee in decision

No → Did the employee consciously disregard a substantial and unjustifiable risk? → Consider remedial/punitive action

Should employee have known they were taking a substantial and unjustifiable risk? → Console or Coach Employee - Conduct Human Error or At-Risk Behavior Investigation

No → Do not consider employee action

The Duty to Produce an Outcome (system under control of employee)

Did the social utility associated with the deviation outweigh the risks associated with the failure to produce the outcome?

Yes → Support employee in decision

No → Is the rate of failure to produce the outcome within the expectations of those to whom the duty is owed?

Yes → Accept outcome

No → Assist employee in producing better outcomes, or consider punitive action

Note: This test applies when the employee controls the system and is responsible for the output of the system.

▲ Burden of production falls on employee

The Duty to Follow a Procedural Rule (system controlled by the employer)

Did the employee knowingly violate the rule?

Yes → Console Employee, Conduct Human Error Investigation

No → Did the social utility associated with the deviation outweigh the risks associated with the failure to comply with the rule?

Yes → Support employee for decision to violate rule

No → Did the employee have a good faith but mistaken belief that the violation was insignificant or justified?

Yes → Coach Employee - Conduct At-Risk Behavior Investigation

No → Consider remedial/punitive action

Note: This test applies when the employee works within a system and is responsible for being a reliable component within that system.

Repetitive Errors or At-Risk Behaviors

Does the source of the series of human errors or At-Risk Behaviors reside within the system?

Yes → Investigate circumstances leading to system risk

No → Consider remedial/punitive action

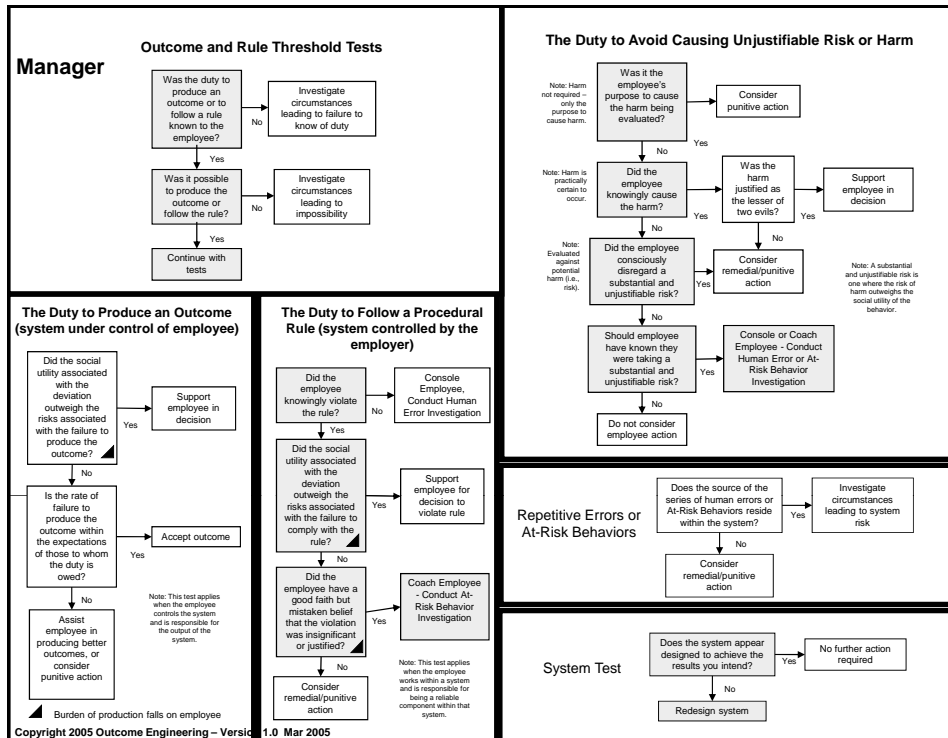
System Test

Does the system appear designed to achieve the results you intend?

Yes → No further action required

No → Redesign system

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Scenario 6

The organization has recently revised and upgraded its infection control protocols. Sinks, soap, and paper towels, as well as foam dispensers are now available near every patient area and there are no barriers to compliance that the staff can name. The staff is well educated on the risk of spreading infection and the danger of hospital infections to their patients' health. One month after the interventions are complete, the nurse manager observes practices of staff and finds that compliance has greatly improved, except for one nurse who routinely does not wash hands between patients. When questioned, the nurse states he does not have time to wash his hands between every patient contact.

Scenario 6

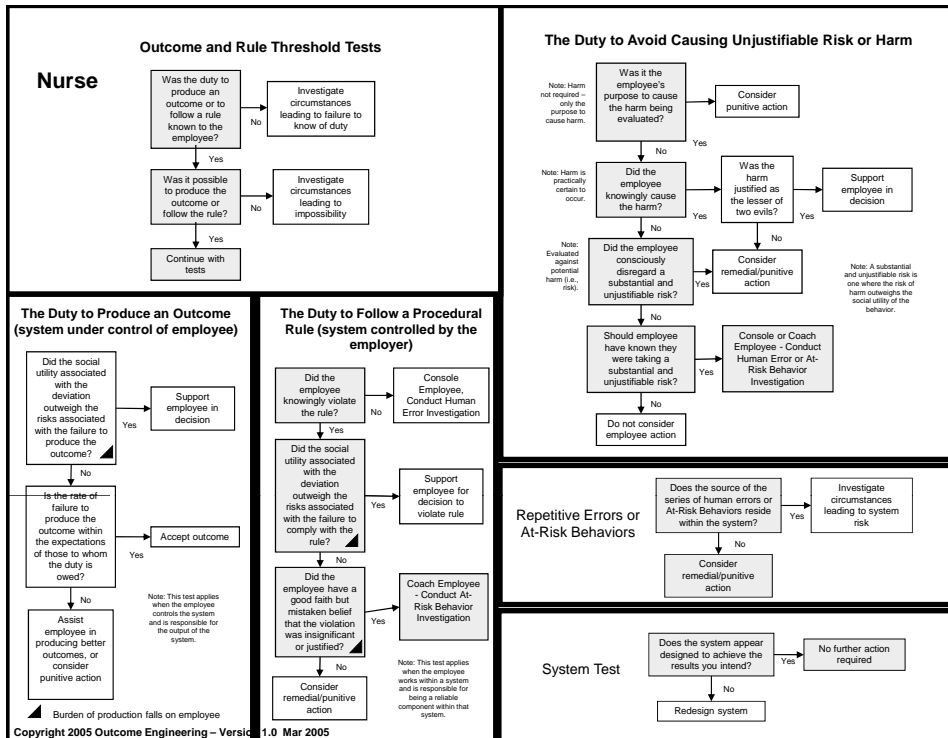
Feeling Of Not Having Time To Wash Hands

Nurse Does Not Wash Hands Between Patient Contact (routinely)

Patient Harm (Hospital Acquired Infection)

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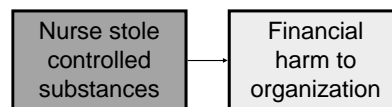


Scenario 7

A nurse is found to have stolen medications for an ailing family member. The controlled substance were taken from a locked emergency box.

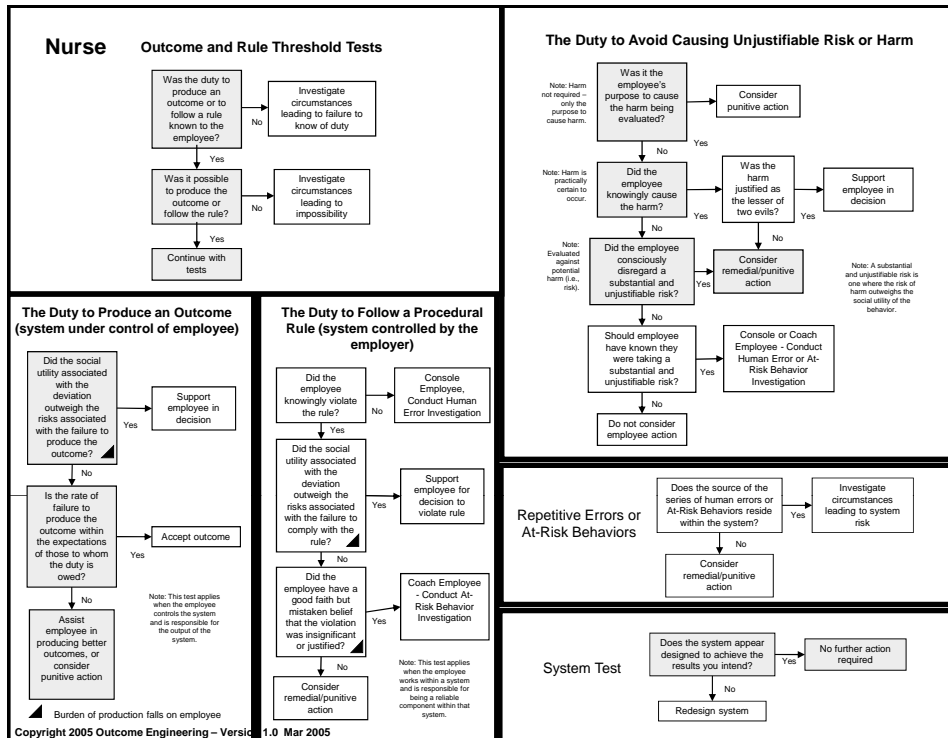
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Scenario 7



- The Undesired Outcome Human Error Behavioral Choice
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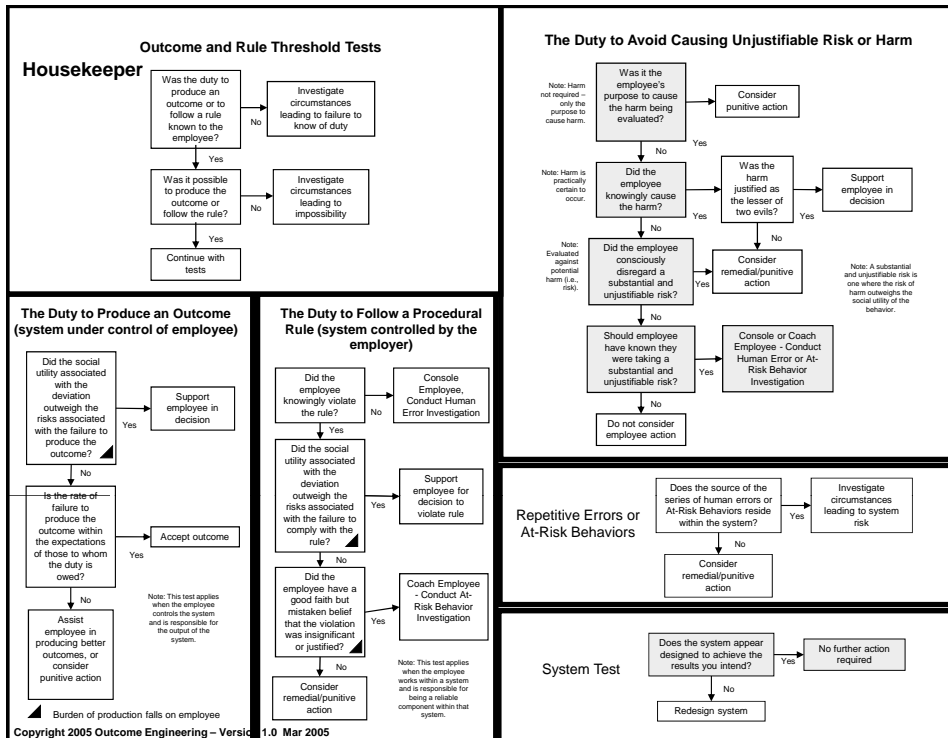
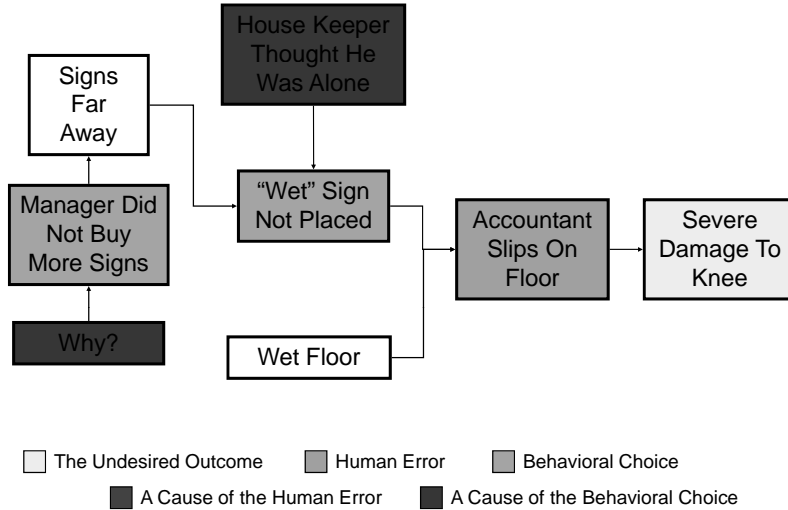
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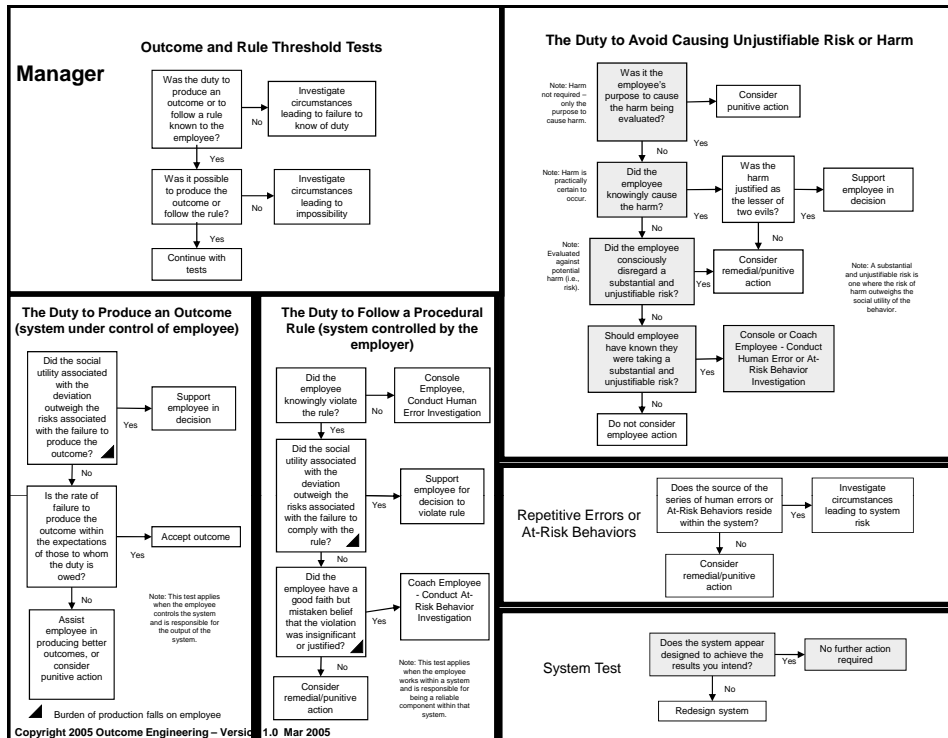


Scenario 8

A housekeeping worker was waxing the floors around 10:00 p.m. He could not find a wet floor sign and would have had to go to another building to search for one. Believing he was alone in the building, he did not go find a warning sign. An accountant slipped on the wet floor and severely damaged his knee. The housekeeping staff frequently had to search for the wet floor warning signs which caused them to get behind on their work. The manager was aware of the unavailability of signs, but did not take any action to purchase more.

Scenario 8





Scenario 9

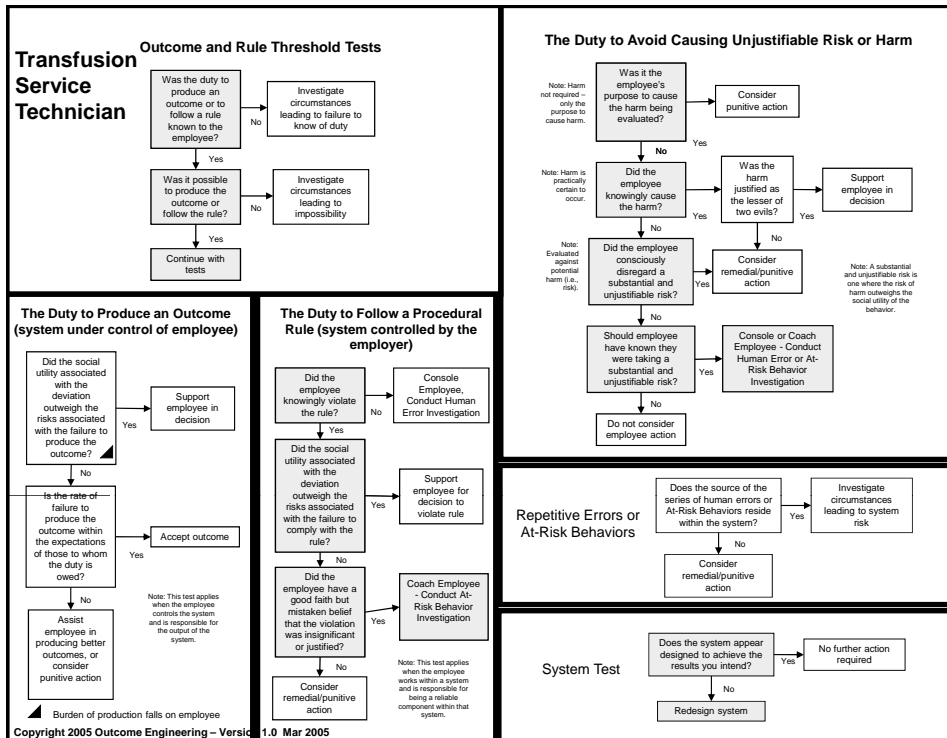
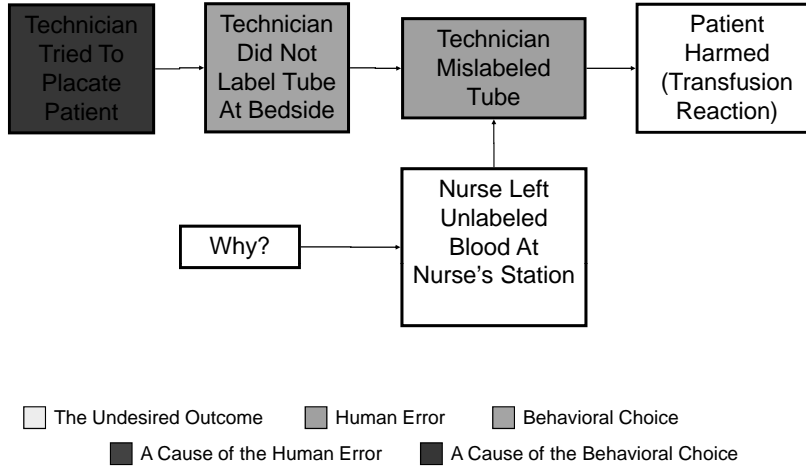
A new transfusion service technician is on the early morning shift drawing blood samples. At Ms. Jones' bedside, the technician checks Ms. Jones's requisition and armband before drawing her blood samples.

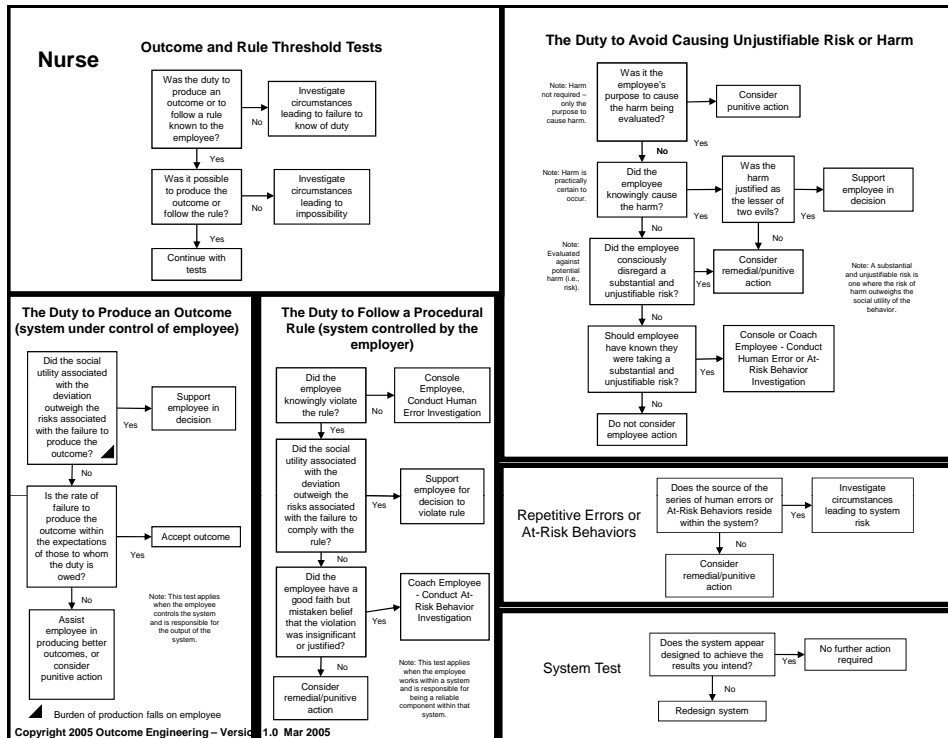
Ms. Jones is really annoyed about the bright lights the technician has turned on, and the technician is trying to placate Ms. Jones by turning them off quickly. She knows that there is a strict procedure to label tubes at the bedside, but as she has already positively identified the patient, and this is the only set of tubes she has, she decides to label the tubes at the nurse's station.

The technician lays the tubes down at the nurse's station and begins labeling. However, a nurse comes to the nurse's station with an unlabeled tube of blood and lays it down nearby. Not noticing this, the technician mistakenly thinks one of her tubes has rolled away. She picks up the nurse's tube and also labels it with Ms. Jones's information.

Ms. Jones is a new patient and her blood type is unknown. The unlabeled tube is used to type and cross units of packed red blood cells for her. Ms. Jones has a moderately severe transfusion reaction when the first unit is being transfused. Investigation reveals that the other nurses and transfusion service technicians routinely violate the rule about bedside labeling.

Scenario 9



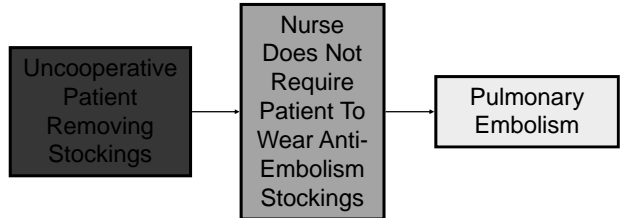


Scenario 10

Nursing assistants on a busy rehabilitation unit are expected to make sure the patients are wearing anti-embolism stockings any time they are in bed. A nursing assistant on evening shift is having difficulty getting a generally uncooperative patient to keep the stockings on. Every time she checks on him, he has removed the stockings. She finally gives up and leaves for the day. This happens several evenings in a row. One evening the patient begins having difficulty breathing and is transferred to ICU with a pulmonary embolism.

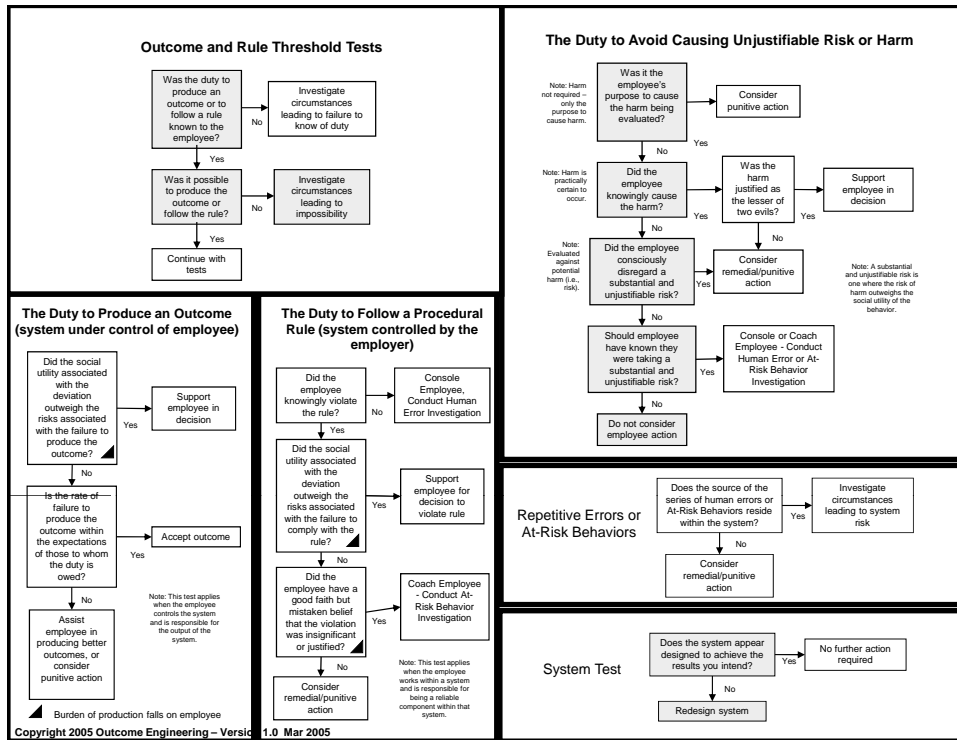
The investigation revealed that many nursing assistants and nurses had come to accept that some patients would be uncooperative. These nursing assistants and nurses simply allowed their patients to accept the risks of not wearing the stockings.

Scenario 10



- The Undesired Outcome
- Human Error
- Behavioral Choice
- A Cause of the Human Error
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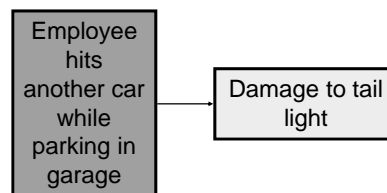
Scenario 11

An employee inadvertently hit another car in the parking garage when trying to park. The event broke the rear light of parked car. The employee did not report the event to the hospital or leave a note for the driver. Instead, the employee moved his car down about 10 spaces so that he would not be associated with the damage.

A visitor reported the event to the hospital, having watched the accident and writing down the license plate of the offending car.

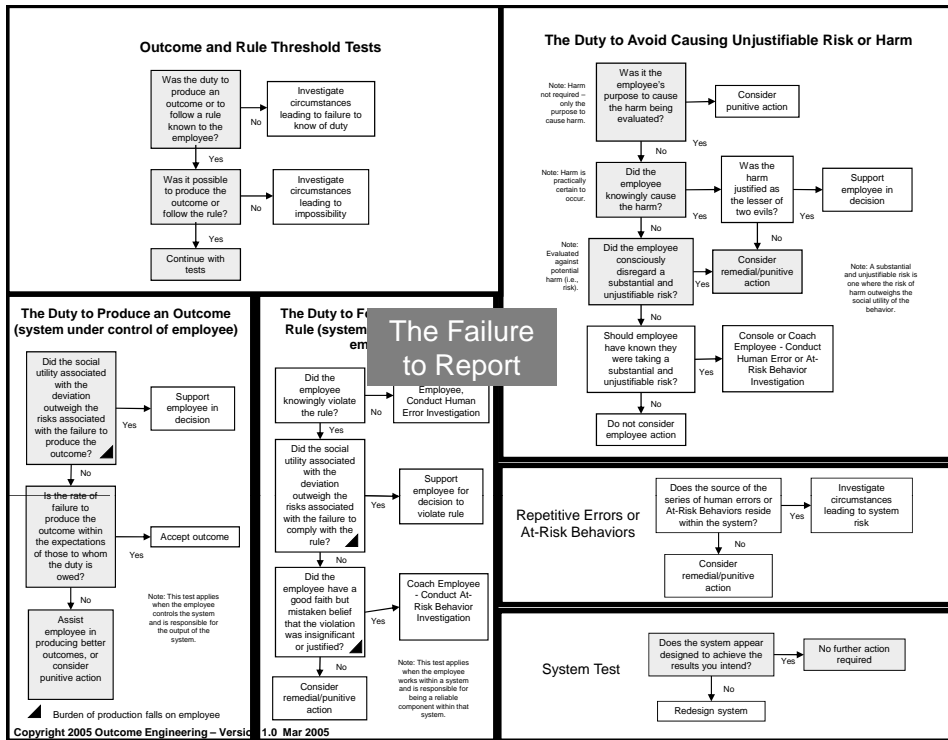
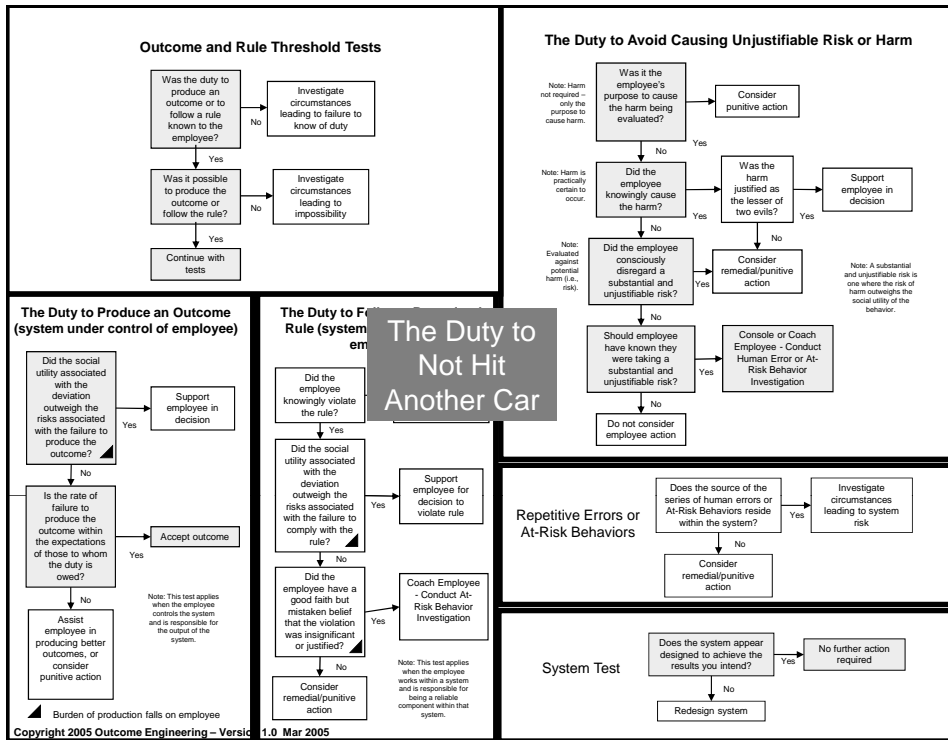
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Scenario 11



- The Undesired Outcome Human Error Behavioral Choice
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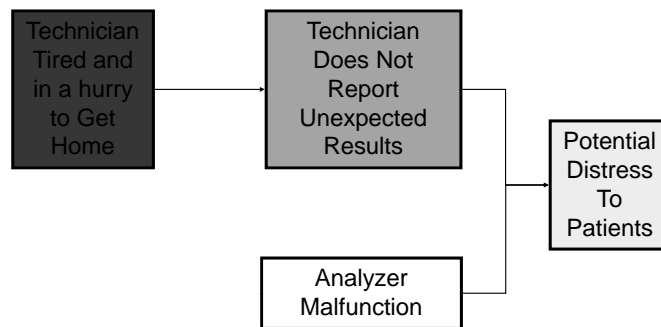
Scenario 12

Five women in their second trimester of pregnancy go to the high risk prenatal clinic one afternoon. They have their blood drawn for measurement of AFP (alpha fetoprotein) as part of the usual screening for fetal spina bifida and other problems. A lab technician runs the tests on a new analyzer. The results from the tests are all elevated. Although this is statistically extremely unlikely, the technician reports the results back to the prenatal clinic. The technician is aware that lab procedures require that unexpected results be discussed with the lab supervisor before they are reported but chooses not to because she is tired and in a hurry to get home.

A social worker at the prenatal clinic is responsible for discussing the results of prenatal testing with the mothers. She notices that all five results are elevated and, suspecting that there has been a mistake, calls the lab manager. The lab manager investigates and soon determines that the new analyzer has malfunctioned. The problem is corrected and the AFP tests are run again and all are within normal range. The lab manager is concerned that the technician did not review the reports with the supervisor before reporting them. It is likely that if the mistake had not been found, the mothers would have been distressed about the results and had unnecessary tests.

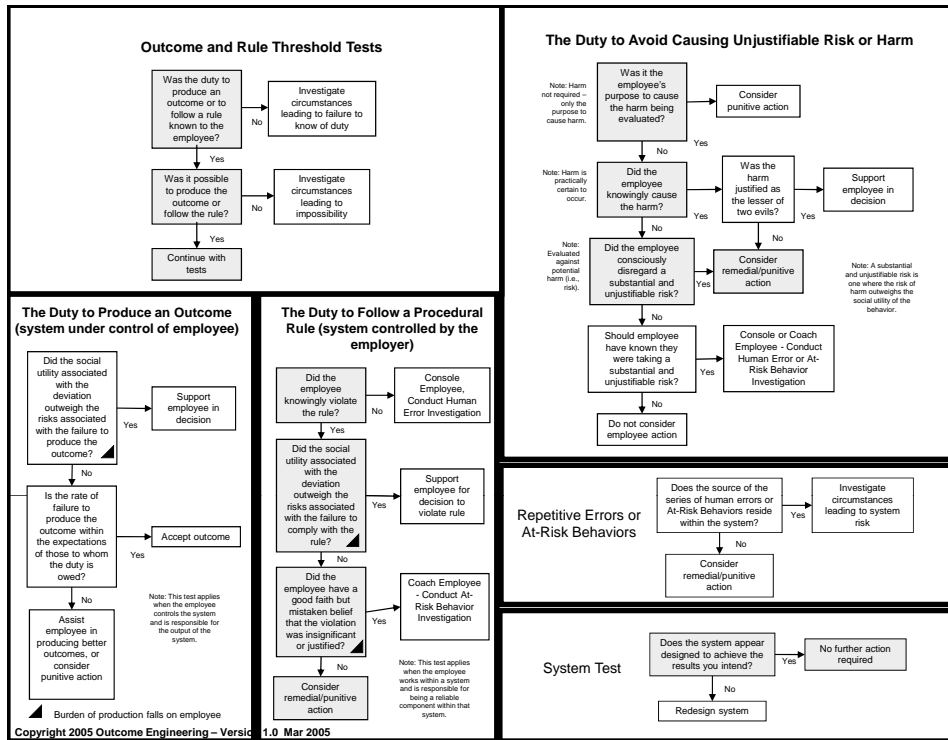
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Scenario 12



- The Undesired Outcome Human Error Behavioral Choice
 A Cause of the Human Error A Cause of the Behavioral Choice

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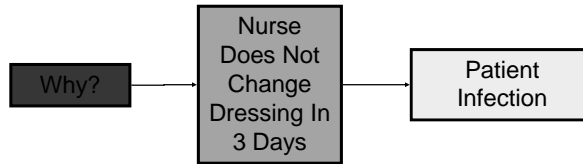


Scenario 13

A home health care nurse visits a patient who needs help with monitoring her blood sugar and a changing the dressing on a wound that is healing slowly. The nurse who usually visits the patient is unexpectedly not available. The nurse who is filling in notices the patient's dressing is dirty and her wound has signs of infection. The dressing is supposed to be changed daily. When questioned, the patient (who is in good mental health) states that her usual nurse has not changed the dressing in three days. The patient's medical records indicate that the dressing has been changed every day.

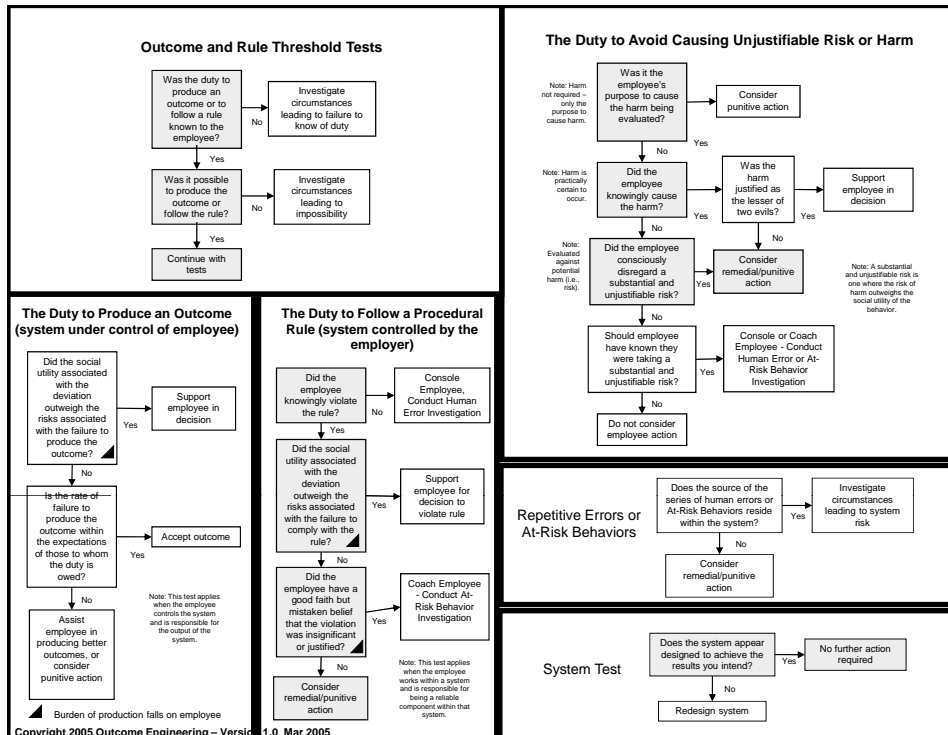
When questioned, the patient's usual nurse denied that she falsely documented the dressing change. She stated that the patient did not like her, and that she was simply trying to get her into trouble.

Scenario 13



- The Undesired Outcome
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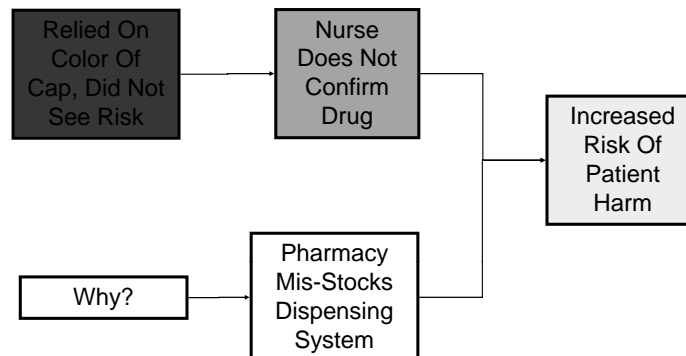


Scenario 14

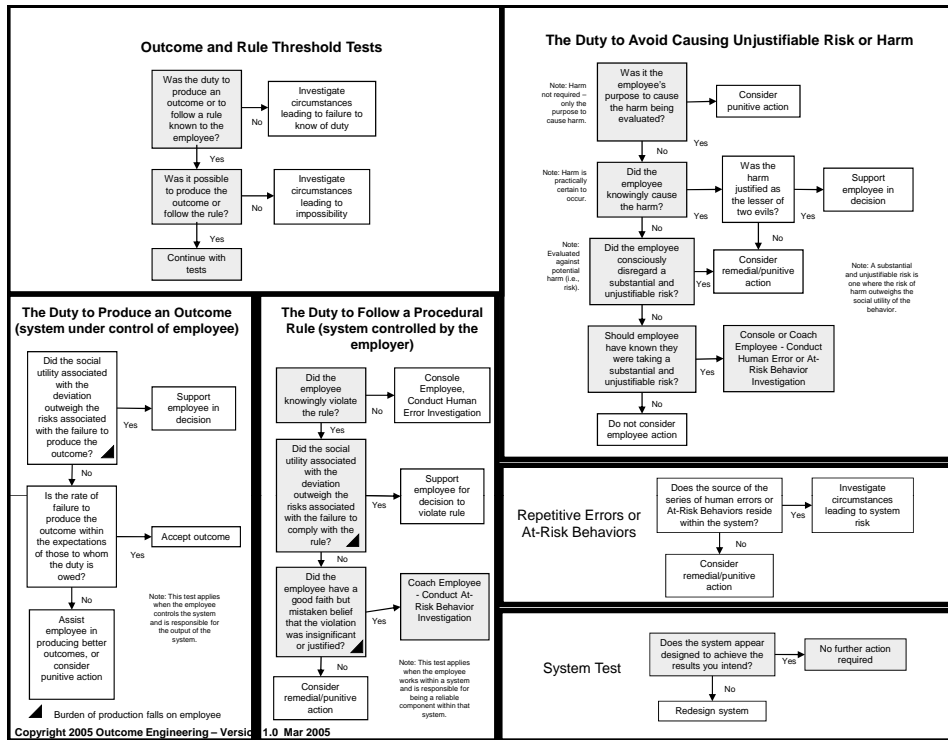
A nurse is going to administer a medication to a baby in the neonatal ICU. The ICU has an automated dispensing system. The automated dispensing system opens a drawer with four bins. As he has always done, he reached into the second bin where the vial of medication is, confirms the blue cap on the vial, grabs the medication and takes it to deliver the medication. At no time in the process did the nurse actually confirm the medication label, instead relied on location in the dispensing system and color of cap to confirm medication. In this case, pharmacy had put the wrong concentration in the dispensing system. The nurse caught the error by glancing at the vial when drawing up the medication.

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Scenario 14



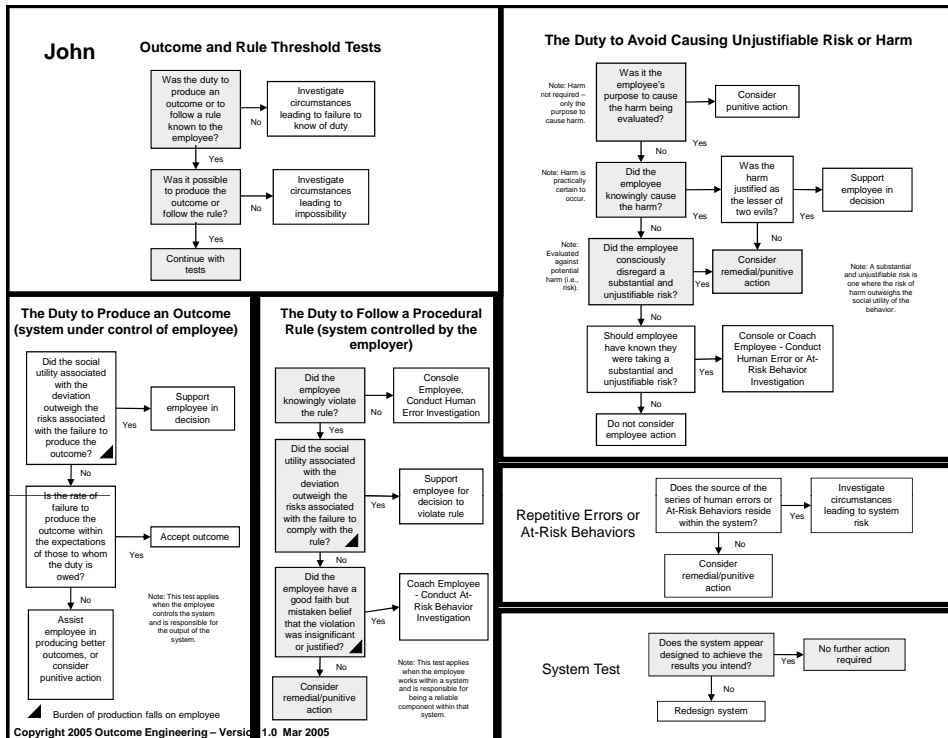
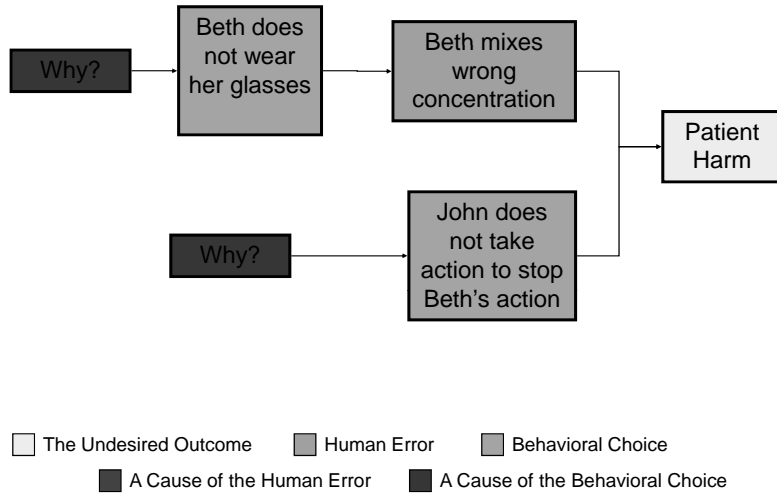
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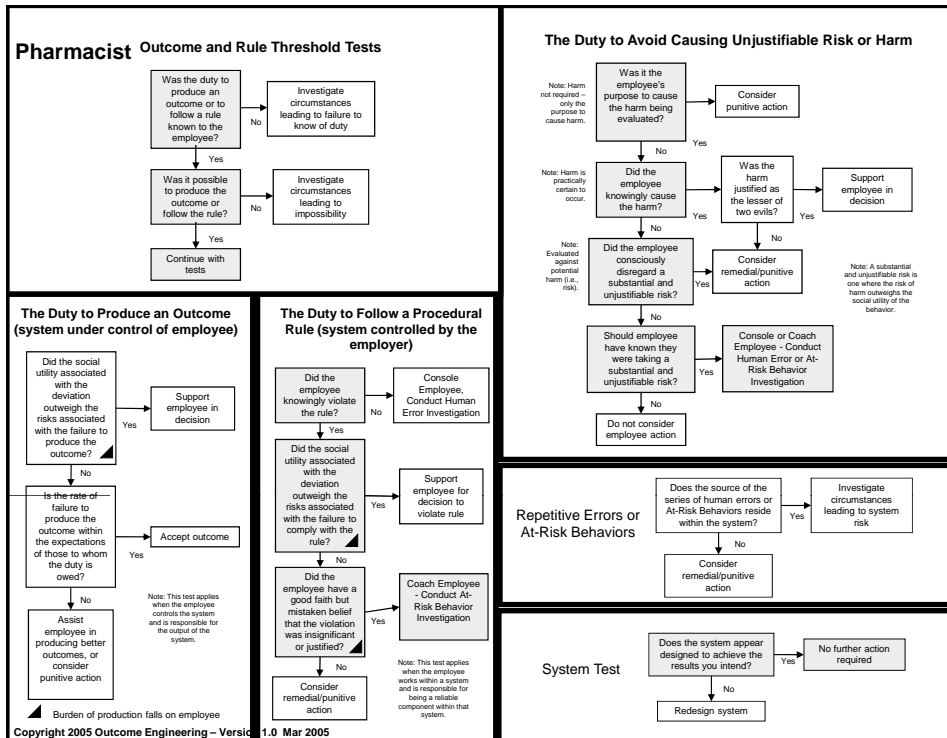
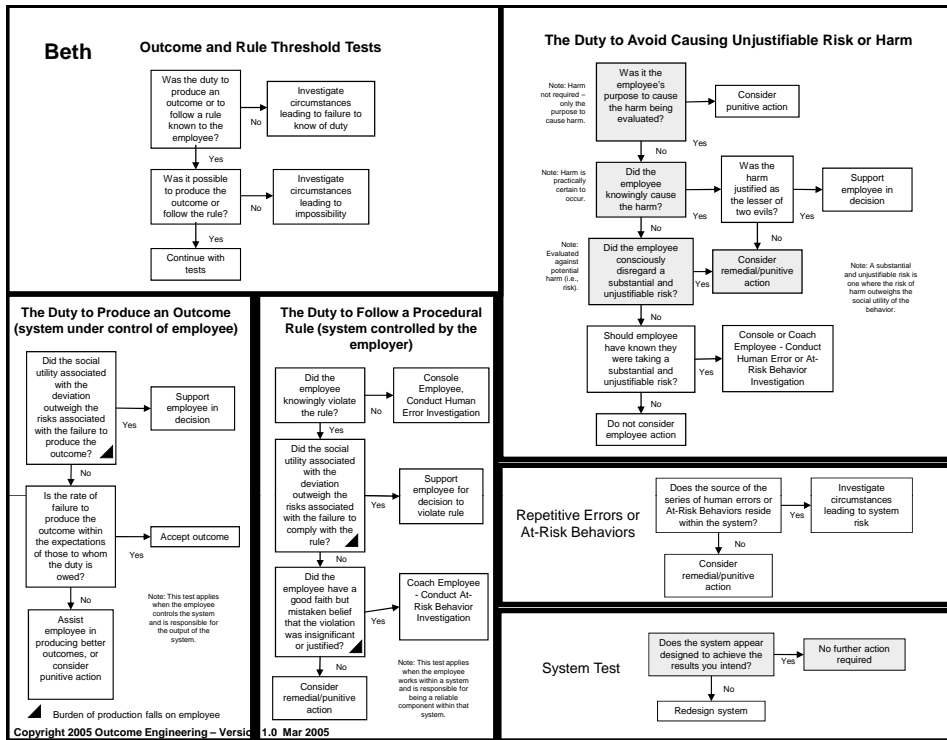


Scenario 15

An experienced pharmacist (John) is orienting a new pharmacist (Beth) to the hospital pharmacy. Beth has learned the pharmacy information system, layout, and workflow. John is now observing Beth as she reviews doctors' orders and dispenses medication. John notices that Beth often seems to be squinting and having difficulty focusing, particularly on the labels of vials. Beth has glasses but isn't using them. John asks Beth why she doesn't wear her glasses and she shrugs him off. Checking Beth's work, John calls her attention to two dosing errors. Beth states she misread the medication labels and with John's help, corrects the problems. Beth is aware that her errors could cause serious harm to patients yet she continues to work without glasses. John is also aware that Beth's errors could cause serious harm. The situation continues until one day Beth mixes the wrong concentration of morphine for a patient's IV. The patient has a serious overdose and almost dies.

Scenario 15





The intravenous pump of a patient starts to beep signaling occlusion in the IV line. A nursing assistant notices the alarm and alerts the nurse on duty. Thirty minutes later the nurse has still not come to investigate the situation. The pump continues to beep and the patient begins to ring the call light each time the alarm rings. Repeated attempts to get the nurse in the room are unsuccessful. Frustrated, the nursing assistant shuts the pump off to keep it from beeping and to keep the patient happy (by turning off the noisy pump) until the nurse can come to fix the problem. Forty-five minutes later the nurse comes in the room, checks the IV and notices that the catheter is unable to flush.

Investigation reveals the nurse was watching a much anticipated television episode in the break room.

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A highly respected surgeon is doing rounds in the hospital. He enters one room where his patient is there asleep. Also in the room is the patient's sister, who is a registered nurse. The surgeon approaches the patient when the sister of the patient politely asks the physician to wash his hands. The surgeon looks at the sister and says, "I assure you, there are no bugs on me." The sister of the patient gets more assertive, "I must insist. Please wash your hands before you touch my brother." The physician reacts by asking the charge nurse to remove the sister from the room. The sister files a complaint with the hospital. The investigation reveals that the physician has been coached recently on the need to follow the hand hygiene protocol.

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A housekeeping worker was waxing the floors around 10:00 p.m. He could not find a wet floor sign and would have had to have gone to another building to search for one. An accountant slipped on the wet floor and severely damaged his knee. The housekeeping manager was aware of the unavailability of signs, but did not take action to purchase more.

Jason Smith, RN, a well respected veteran nurse on the med-surg unit, was asked by the CNO to work on the pediatric unit temporarily. The peds unit had just opened and the hospital was unable to hire enough nurses and so brought agency nurses on to cover the staffing needs. Management wanted to have at least one employed nurse working at all times with agency staff. Jason agreed to change positions temporarily. Three months later the staffing situation is the same. Jason's requests to return to his home unit have been denied. He tells the manager that he is uncomfortable being the only employed nurse on the unit during his shift and that much of his time is spent assisting agency nurses.

Several times over the last three months Jason has miscalculated medication doses. Despite having been warned about these failures, he has miscalculated a dose of an important medication.