

This case settled against the hospital for \$450,000. The attorney had little medical knowledge prior to this report.

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I. SUMMARY OF HOSPITAL EVENTS

This is a case about a 32 year old man who was in pulmonary edema upon returning to the floor from having surgery to his wrist, who did not receive timely emergency medical care, that lead to his death.

7/27/96 Admitted to ABC Hospital in Cookville

7/28/96

6:25pm Entered the operating room for surgery

10:30pm Surgery was completed

10:50pm Suctioned and breathing tube removed by Andrews, CRNA

11:50pm Left operating room to return to floor with CRNA

11:55pm Returned to floor

12:00am First vital signs done, heart rate 100, BP 140/68, respiratory rate 60, respirations labored, coughing up blood tinged sputum, drowsy.

12:30am Nursing supervisor notified of labored breathing, and congestion. Vital signs-
heart rate 120, respirations 50, no BP recorded. Alert and oriented.

12:30-1:20a See cardio-pulmonary arrest sheet (None available)
[From Narrative notes written by those in attendance during this time period.]
Central line was inserted by Dr. Wright, given lasix and morphine IV, foley catheter inserted, ventilated with a bag and mask by CRNA, a chest x-ray and EKG were done before transfer.]

12:50am ABG done. pO₂ 60, pCO₂ 56, pH 7.112, saturation 80%.

1:14am EKG done.

1:15am CXR done. (No previous x-ray for comparison. Shows nasogastric tube, central line and diffuse pulmonary infiltrates)

1:20am Transferred to ICU with oxygen, heart monitor, CRNA, ER physician, and
nursing supervisor. BP 158/100, no other vital signs recorded.

1:30am Arrived in ICU, not responding to questions, combative, heart rate was 160, blood pressure 140/86.

1:32am oral airway was placed, given 25mg Cardizem IV per nursing supervisors instructions.

1:36am respiratory arrested, heart rate was 50, had no pulse. A breathing tube was inserted, CPR and ACLS started. Took 1 ½ mins. to insert breathing tube.

1:50am CXR done

2:10am Pronounced dead.

I. GENERAL DEVIATIONS IN THE STANDARD OF CARE

A. ABC Hospital in Cookville

1. Respondeat superior-as employer of nurses and nursing supervisor
 - Failed to maintain an accurate and complete medical record
 - Failed to supervise personnel
 - Failed to assign personnel commensurate with their training and experience
 - ?Failed to provide for safe staffing (need to find out the staffing of the floor that night)
2. Doctrine of Ostensible Agency- responsible for CRNA, ER physician

B. Physicians

1. Dr. Dr. Peters -Orthopedist
 - a. Failed to perform a thorough physical assessment.
 - b. Failed to order appropriate pre-operative blood work (chemistry studies).
 - c. Failed to order pre-op EKG and CXR in an obese smoker. [A Surgeon was consulted that said it is not standard practice to do these tests unless patient had a specific health problem which required them, Mr. Jackson did not] *If we needed to know this, could **request table of contents from Anesthesia manual.***

In Sabiston's Textbook of Surgery (P.81) 1991, under chapter entitled "*Principles of Pre-operative Preparation of the Surgical Patient*", "Every patient scheduled for any operation should have a specific, careful cardiovascular evaluation. In young people previously overlooked congenital lesions may be discovered."

2. Dr. Wright -ER physician
 - a. Failed to timely intubate patient to prevent respiratory arrest.
 - b. Failed to timely obtain/order an EKG and CXR.
 - c. Failed to timely administer appropriate medications/ cardioversion.
 - d. Failed to intervene in giving Cardizem to this patient.
 - e. Failed to order/obtain ABG's once intubated or after initial ABG
 - f. Failed to act on ABG results and intubate.
3. Dr. Lewis- anesthesiologist in charge of CRNA (stated on consent he or one of his assistants would provide anesthesia) **According to the Va. Nurse Practice Act, Part III, 18 VAC 90-30-140, CRNA's must practice under the medical direction and supervision of a doctor of medicine.** *(Need to identify who releases patient to be returned to floor, CRNA or anesthesiologist)*

C. Nurses

1. D. Sorkin, RN - Floor Nurse
 - a. Failed to perform and document a full assessment-respiratory and cardiovascular assessments specifically.
 - b. Failed to continuously assess and monitor this patient's condition.
 - c. Failed to maintain an accurate and complete medical record.

Standard #I of the American Nurses Association's (ANA) Standards of Clinical Nursing Practice, 1991, "Assessment"states that THE NURSE COLLECTS CLIENT HEALTH DATA.

The priority of data collection is determined by the client's immediate condition or needs and the data collection process is systematic and ongoing. Also included in this standard is that the data is documented in a retrievable form.

According to the standards published in the 1996 *Joint Commission for Accreditation of Hospitals* manual (referred to as JCAHO) (p. 58):

PE 4 and 4.1 "THE HOSPITAL DEFINES PATIENT ASSESSMENT ACTIVITIES IN WRITING. AND THE SCOPE OF ASSESSMENT PERFORMED BY EACH DISCIPLINE." The hospital defines assessment activities in policies and procedures, protocols, or other such documented guidelines taking into account the different settings in which care and treatment is provided.

PE 4.3 "A REGISTERED NURSE ASSESSES THE PATIENTS NEED FOR NURSING CARE IN ALL SETTINGS WHERE NURSING CARE IS PROVIDED." This has been interpreted by JCAHO as the "judgment and skill of a registered nurse are required to determine and set priorities on a patient's nursing care needs."

d. Failed to timely initiate proper nursing interventions required to stabilize Mr. Jackson's condition and prevent complications.

The ANA Standard #II, states "THE NURSE ANALYZES THE ASSESSMENT DATA IN DETERMINING DIAGNOSIS." [This does not mean a medical diagnosis] Nurses are responsible for assessing the patient and forming nursing diagnoses, such as "Impaired Gas Exchange Secondary to Post-operative Atelectasis or Fluid Volume Overload". Even in an emergency your actions are dictated by your assessment of the patient and forming a diagnosis in your mind from which to work. These diagnoses should be documented in the nursing plan of care when able.

The definition of diagnosis given by the ANA is "A clinical judgment about the patient's response to actual or potential health conditions or needs. Diagnoses provide the basis for determination of a plan of care to achieve expected outcomes." The expected outcomes are defined as measurable, expected, patient focused goals, toward which nursing actions are directed. The outcome in this case is prevention of complications, and restoration and maintenance of optimal cardiac and lung functions.

According to ANA Standard # IV, "THE NURSE DEVELOPS A PLAN OF CARE THAT PRESCRIBES INTERVENTIONS TO ATTAIN EXPECTED OUTCOMES." This plan reflects current nursing practice, is documented and individualized to the patient's condition." This can be done in the nurse's head in an emergency, but some diagnosis should govern her actions. Nurses are independent decision makers and exercise their own judgment. The nurse should not wait for the physician to tell her what to do in this type of situation.

e. Failed to timely notify surgeon, nursing supervisor and charge nurse of patient's condition at 12mn.

Nurses are the eyes and ears of the physician and should notify appropriate personnel when further action is needed. **[Need to Request Job Description for RN]**

f. Failed to continuously evaluate Mr. Jackson's condition and document the patient's

response to the resuscitative efforts.

ANA Standard #V states the “ nurse implements the interventions identified in the plan of care. They are implemented in a safe and appropriate manner and they are documented.”

Standard #VI, states that the “NURSE EVALUATES THE PATIENT’S PROGRESS TOWARD THE EXPECTED OUTCOMES.” This evaluation is systematic and ongoing. The responses to these interventions are documented. The effectiveness is evaluated in relation to the outcome. Ongoing assessment data is used to revise the diagnosis, outcomes and plan of care as needed. These revisions are documented.

2. P. Baker, Nursing Supervisor
 - a. Failed to supervise nurses rendering care to the patient. [**Need to Request Hospital’s Job Description for Nursing Supervisor.**]
 - b. Gave order to administer incorrect medication for fast heart rhythm that may have worsened his pulmonary edema and slowed his heart rate too much.
3. D. Cooper, RN, circulating nurse in OR
 - a. Failed to monitor patient’s condition after surgery or failure to intervene. [Need to obtain a copy of job description for circulating nurse in the operating room.]

JCAHO standard TX.5.3 “DURING THE PROCEDURE, THE PATIENT’S PHYSIOLOGICAL STATUS IS MONITORED AT A LEVEL CONSISTENT WITH THE PROCEDURE’S POTENTIAL EFFECT AND A REGISTERED NURSE SUPERVISES PERIOPERATIVE NURSING CARE.”

TX.5.4 “THE PATIENT IS MONITORED CONTINUOUSLY DURING THE POST PROCEDURE PERIOD.” This should include physiological and mental status, IV fluids and drugs administered, unusual events or postoperative complications and their management. Results of monitoring triggers key decisions, such as transfer to an alternative level of care.

In *Perioperative Nursing: Principles and Practice*, (1996) a book endorsed by AORN, (p. 7) “The perioperative nurse is responsible and accountable for the major nursing activities occurring in the surgical suite. These activities include but are not limited to:

1. Assessing of the patient’s physiologic and psychological status before, during and after surgery.
2. Identifying priorities and implementing care based on sound nursing judgment and individualized needs.
3. Functioning as a patient advocate by protecting the patient from incompetent, unethical or illegal practices during the perioperative period.
4. Coordinating all activities associated with the implementation of nursing care by other members of the health-care team.”

In an article entitled *The Perioperative Nurse’s Role in Anesthesia Management*, published in the AORN Journal, it states, “The perioperative nurse’s role in anesthesia management of the surgical patient begins with a preoperative assessment and ends when the patient recovers from the effects of anesthesia.”

In *Perioperative Nursing: Principles and Practice*, (p. 369) “Postanesthesia care was not

always provided by a separate group of nurse; in fact, today in small hospitals and/or during off shift hours or on-call situations, the perioperative nurse may be responsible for the management of patient care during this phase.”

(P. 370) “Each institution should have established policies for implementing patient care during the immediate post-operative period, including documentation guidelines and specific tasks and activities that will assist the patient during this critical transition.” [**Need to request P/P for care of the patient recovered in the OR, P/P or documentation guideline for circulating nurse and duties of circulating nurse**]

The primary goal of immediate postanesthesia nursing care is the safe recovery and arousal of the patient from the effects of anesthesia.

“The patient’s well being is directly related to adequate ventilation and circulation; therefore the patient’s respiratory status, skin color and cardiovascular status are the first to be evaluated during the initial assessment.”

D. Other

1. D. Angelo, CRNA

- a. Failed to assess and monitor and document the patient’s respiratory status (knew respirations were 60 on arrival to floor)

According to the standards published in the 1996 *Joint Commission for Accreditation of Hospitals* manual (p. 53)

PE. 1.7.4 “THE PATIENT’S POSTOPERATIVE STATUS IS ASSESSED ON ADMISSION TO AND DISCHARGE FROM THE POSTANESTHESIA RECOVERY AREA.” {In this case the hour kept in the OR after extubation covers the usual recovery room period} The interpretation of this standard as stated on p. 53 is as follows. “When a patient undergoes surgery the hospital staff members evaluate the patient’s status continuously before, during and after the procedure.”

(p. 70) Each organization develops specific, appropriate protocols for the care of patients receiving sedation/anesthesia with risk or loss of protective reflexes (inability to handle secretions without aspiration or to maintain an open airway) These protocols should address at least: who can perform anesthesia, the appropriate monitoring of vital signs-heart and respiratory rate and oxygenation, and how care is documented. [**Again need to request P/P for care of the patient recovered in the OR, Job description for CRNA and p/p for documentation on Anesthesia Record**]

TX.2.4 (p. 71) “THE PATIENT’S POST PROCEDURE STATUS IS ASSESSED ON ADMISSION TO AND BEFORE DISCHARGE FROM THE POSTANESTHESIA RECOVERY AREA.” (In this case should be assessed before leaving for floor and on arrival to floor)

TX.2.4.1 “PATIENTS ARE DISCHARGED BY A QUALIFIED LICENSED INDEPENDENT PRACTITIONER OR ACCORDING TO CRITERIA APPROVED BY THE MEDICAL STAFF.” According to JCAHO manual organizations quantify and standardize

criteria for discharge from the postanesthesia recovery area. To ensure successful outcomes for the patient, compliance with discharge criteria is documented in the patient's medical record.**[Need to request P/P for discharge criteria from OR or from the post anesthesia care unit]**

TX.5.4 "THE PATIENT IS MONITORED CONTINUOUSLY DURING THE POST PROCEDURE PERIOD." This should include physiological and mental status, IV fluids and drugs administered, unusual events or postoperative complications and their management. Results of monitoring triggers key decisions, such as transfer to an alternative level of care.

- b. Failed to provide timely and adequate ventilatory support.
- c. Failed to perform another ABG to assess effectiveness.
- d. ?Failed to maintain a patent IV line. (We don't know when this came out of was removed, should not have been transferred without one- need to find out in deposition)

III. SPECIFIC DEVIATIONS FROM THE STANDARD OF CARE

SPECIFIC DEVIATIONS FROM THE STANDARD OF CARE

Date/Time	Event/Management/Assessment	Comments/Deviations from the Standard of Care
7/27/96 3:40pm	<p><u>ER Record</u> (p.1) BP 188/117, HR 104, RR 26, Temp. 99.6 No allergies, No past medical history and takes no medications Reason for Visit: pumping up tire, bursted and sustained injury to Rt hand and wrist. Complained of pain. <u>History & Physical</u> (H & P) awake, alert in moderate distress due to pain, right hand swollen, tender at 3,4,5 metacarpals of rt hand, tender and swollen over lower right radius (larger bone of forearm), no loss of sensation, all fingers weak, radial pulse present. Medications: Toradol IM (intramuscularly) <u>Tests:</u> X-rays of right hand and wrist <u>Clinical Impressions:</u> fracture of eight bones of wrist, fracture of lower 1/3 of radius, and dislocation and fracture at base of index finger. Admitted under Dr. R. Haney's service. Left ER at 6:30pm</p>	<p>Although Mr. B. J. came into the ER hypertensive, he had a number of reasons for his BP to be elevated, specifically pain and anxiety. The MD said he was in moderate distress due to pain. I think his BP was higher than it should be even under these circumstances, but since everyone's physiologic responses to different stimuli may be different this will probably be difficult to prove.</p> <p>The purpose of ER is to focus on the injury of to try to diagnose the condition that brought the patient to the ER. In this case they diagnosed his orthopedic injuries based on the exam and x-rays. A more thorough exam of other body systems was not warranted in the ER.</p>

7/27/97
(No time)

Short Stay Record (p. 2) To be used in cases hospitalized 48 hours or less) This is a pre-printed H & P form. Done by Dr. Peters- Orthopedic surgeon

Past Medical History: Multiple lacerations in the past requiring surgery or repair, no past medical history, no medications, smokes, drinks alcohol, family history is unremarkable, lives with wife, no allergies. Exam: BP 172/90 HR 94-106, RR 22, Heent: (head, eyes, ears, nose and throat) WNL (within normal limits)

Chest/CV: clear

Neck: supple,

Breast: no masses,

Abdomen: soft, bowel sounds present,

pelvic/rectal: no mass or blood, Neuro:

decrease sensation in right hand,

extremities/MS: swelling rt wrist, skin:

warm and dry.

Peters, MD

General Info. about Dr. Peters- grad. from U. Of New Mexico medical school in 1964. Orthopedic Residency at University Med. Center. Mailing address P.O. Box 466 Cookeville, Va. 23901

This exam is very short and cursory. Unless he is documenting by exemption which MD aren't suppose to do. The only thing he mentions about the heart and lungs is that it is clear, probably listening to the lung sounds- indicating that there weren't any crackles (indicating fluid in the lungs) wheezes, or secretions causing other sounds. There is no mention of his heart sounds, where his PMI is (point of maximum impulse) . This is assessed by palpating (touching) different parts of the chest wall to see where the heart beat is the strongest. If it is not where it should be, ie. if it has shifted, it may warrant further investigation, like a chest x-ray to assess the heart size. Additional heart sounds other than the 2 that are normally heard, may indicate fluid overload or congestive heart failure. I wouldn't expect to find crackles and other heart sounds at this time, but may have found the PMI had shifted.

Nurses and doctors alike are suppose to do a thorough and complete head to toe assessment of all patients. In an emergency it is acceptable to focus on the specific system or systems involved. It has been my experience that surgeons notes and

H & P's are short like this and do not go into the detail the medical doctors do, but surgeons and medical doctors all went to the same school, therefore they all learned the same assessment skills and should be capable of performing and documenting a full assessment.

CV: failed to document heart sounds (murmurs, gallops (additional heart sounds, friction rubs, apical compared to radial pulse and peripheral pulses (quality, rate, rhythm, presence of all) presence of absence of jugular vein distention (indicates vascular congestion and fluid backing up), The BP is elevated. Resp: failed to inspect the chest for bilateral chest expansion and equality and respiratory pattern (rate, quality, depth and rhythm). He failed

Also blood chemistry was not done (not ordered). **This is a deviation from the standard of care.** There is no baseline lab values to compare to should any complications arise. If they were done and revealed an elevated creatinine it might have lead them to suspect that his high blood pressure was long standing. Had a more thorough assessment been done he might have done a chest x-ray and saw his heart size was larger than expected and maybe he might have received less fluid. *If you want more definitive answers, I know a general surgeon who practiced in D.C. until sometime in 1996, that is going to law school in AZ that will only charge \$300 to review and for report.*

7/27
6:15pm Consent for Surgery (p 10)
Standard typed consent form with blanks to write in info. States the risks and possible complications were explained by Dr. Peters. "I request the administration of anesthesia as may be considered or advisable in the judgment of Dr. Lewis or his assistants."

Need to determine if Dr. Lewis was the supervising anesthesiology of the CRNA on day of surgery and who was responsible for releasing the patient back to the floor. **[Need to request a copy of the Table of Contents of every policy and procedure manual located in the OR (including those that govern Anesthesia Dept. and personnel, Recovery Room, and Medical-Surgical Floor)]**

7/27 Pre-op checklist (p. 11)
Chest x-ray and EKG on not in the chart because they were not ordered.
Ht 5'9", WT 270#

Obtain P/P for completing of Pre-operative Checklist. Hospital thought these items were important enough to include in their lists of things to for the nurse to do or check before patient undergoes surgery. These are usually partially filled out ahead of time unless it is emergency surgery. Nurse was correct to document that this was not ordered, but should have verified with the doctor that it was not an oversight, then document to cover herself. This was not done.

7/27 Physician's Orders (p. 19)
Regular Diet, VS routine, up to BR, pain meds, x-rays to OR on call, notify x-ray we need a C-arm in am. Plan surgery at 10am, old chart to floor, Anesthesia consult this evening, procedure will be difficult and long, consent on chart.

Again failed to order EKG, CXR and chemistry studies.

7/27 6:45pm	<u>Multi-disciplinary Assessment</u> (p. 23-26) Last visit to MD was 2-4 months ago for neck problems. Primary MD: Grover (workers comp. doctor) Patient Medical History: (none checked) System assessment- all areas marked as “no problem”, except nothing documented under CV system	Form is mostly checks and if something is abnormal nurse is suppose to explain. CV system is not checked as being assessed on this form. (P.26) , although one is documented on the flowsheet for that day on p. 30, although this assessment is more basic (only including the heart rhythm as regular and the quality of peripheral pulses) A complete head to toe assessment should be done on admission according to ANA and JCAHO standards, failure to do this is a deviation in the standard of care. You may want to get a copy of Dr. Gadsky’s records or family doctor if there is one. The defense probably will obtain these.
[Request P/P re: documentation on Multi-disciplinary Assessment, (also called Nursing Admit Note, Nursing H & P)		
7/28 7:00am	<u>Physician’s Orders</u> p. 20 Clear liquid breakfast, nothing by mouth after. IV @100cc/hr. Telephone order by Dr. Peters	
7/28	<u>IV Infusion record</u> (p. 33) IV @ 100cc/hr started at 8:30am, new bag hung at 5:30pm	Received 1000cc of IV fluid over 9 hours (new IV bag hung at 5:30pm) + 2600cc of IV fluid from the OR = 3600cc over 16 hours. Voided only total of 400 cc on 7a-3pm shift. In a normal healthy person this amount of fluid is okay, but in someone with an underlying heart problem (undiagnosed) they can become fluid overloaded.
7/28	<u>Nursing Flowsheet</u> (p.33, 34) cardiovascular assessment at 7:15am and 4:15pm documented as normal, Urine output total 400 for 7a-3p shift, IV fluid not added to total. (Documented that he voided 200cc from 4p-5p- this was added on 7/30/96 by MBT, he died on 7/29) p. 33	Not documented if this 400cc was at at 8am and then nothing after this. Should have been voiding more than this since he had received 1000cc of fluid. Nurses did not pick up on this subtle finding. Nurses should have notified Dr. Peters of this by 2 or 3pm. Would want to ask in deposition why this was added the day after his death? Could ask any nurse or nursing supervisor if this is standard practice to add info after a patient has died? This might be able to be used to decrease their credibility.

7/28
6:00pm

Preanesthetic summary (p. 16)
ASA 2, airway class II, ROM: no TMJ,
Respiratory System: doesn't smoke,
negative marked for everything including
chest x-ray, Circulatory System:
Negative, but HTN circled, BP 160/80,
Central Nervous System: negative, other
systems marked as negative. Hemoglobin
12.9 (normal is 14-18)

The fact that the CRNA marked chest x-ray was negative when one wasn't done can be used to decrease his credibility. Also marked that patient didn't smoke when previously documented in chart that he did.

Just like other professionals, the CRNA is responsible for doing a complete head to toe assessment and review of systems (where they ask questions pertinent to each body system.)

Although his hemoglobin was on the low side for a male, they would not give him blood for this hemoglobin. But hemoglobin is what carries oxygen in the blood, so a low hemoglobin cannot carry as much oxygen to the body's cells.

In article entitled *The Perioperative Nurse's Role in Anesthesia Management*, published in the AORN Journal, it states "The anesthesia care provider reviews the patient's chart, noting medications, lab test results, and reports of current EKG and chest x-rays."

[Request P/P for CRNA or anesthesia personnel in regards to completion of Pre-anesthetic summary]

7/28

Anesthesia Record, p. 17-18

6:25pm entered OR room, monitors placed (EKG, auto BP cuff, oxygen analyzer, pulse oximeter, carbon dioxide monitor) IV placed, intubated without trauma to mouth or teeth, inserted #8 breathing tube into mouth, inserted #18 naso-gastric tube to decompress (remove air) from the stomach. Surgery ended 10:30pm, had received 2600cc of IV fluid, estimated blood loss was 50cc, Breathing tube was removed at 10:50pm after he was suctioned to remove secretions from lungs. BP ranged low 100's to 150 systolic. Oxygenation ranged from 96 to 100, HR at end of surgery was around 85, after he was extubated increased to 100-110. Back to room at 11:50pm. VS on arrival to floor: 140/68, HR 100, RR 60. (P.17)

If Mr. B. J. is being recovered in the OR, he should expect to receive the same care as if he was sent to the recovery room. Including a complete head to toe assessment. He should also be continuously assessed and monitored. **[Request P/P from OR for recovery of patient outside of the recovery or post anesthesia care unit]**

There is no documentation of Mr. B.J.'s respiratory rate after extubation, just that he was breathing on his own. A increase in HR from 85 to 100-110 should have alerted CRNA to assess him more carefully. Lung sounds not assessed, no mention of color, appearance, or consistency of secretions before extubation (removal of breathing tube). Oxygenation was okay, but dropped to 96% from 100% before transfer. These need to be addressed in the deposition.

Who is responsible for releasing patient to floor (deciding that the patient was stable for transfer)? CRNA or anesthesiologist? What criteria was used to determine this? **[Request P/P on discharge criteria from recovery room or OR]**

The fact that the patient's admission vital signs are documented on the anesthesia records indicates that the CRNA knew what his respiratory rate was before leaving him on the floor. This CRNA should never have left this patient. **This is a significant deviation in the standard of care.**

7/28/96

OR Assessment/Nurse's Notes
(p.14-15)

This form deals mostly with the OR procedure itself. Position of patient, where and when tourniquet applied to extremity, cast applied, who did the surgery, pre- and post-procedure diagnosis, sponge and instrument counts. The second page covers nursing care plan, interventions in check list type of format.

Condition on transfer: Stable

There is no pre-operative assessment done by the nurse except for level on consciousness and skin color. This is a deviation in the standard of care. There are 4 lines for a post operative assessment, that discuss the patient being transferred to ICU after respiratory difficulty. As per article referenced above. "The perioperative nurse, surgeon and anesthesia personnel transfer the patient to the PACU (recovery room). The PACU nurse assesses the patients recovery from anesthesia by observing his activity level, respirations, circulation level of consciousness and skin color." Since this patient was not transferred to the PACU and he should receive the same care as if he had, including the close assessment and monitoring, the circulating OR nurse and the CRNA as responsible for these functions. General standards of practice promulgated by ASPAN (American Society for Post Anesthesia Nurses) in Richmond are very similar to ANA standards already discussed.

The areas that need to be assessed by either the CRNA or OR nurse are :
(*Perioperative Nursing Practice*, p. 371)

1. "vital signs-respiratory status, circulatory status, pulses, temp., oxygen saturation (these are the only things CRNA had recorded with the exception of RR, which was not recorded at all after extubation)
2. Color and condition of skin and mucus membranes.
3. Position of patient for comfort and safety.
4. Type and patency of drainage tubes and catheters
5. Condition of dressings; amount/ type of drainage
6. Movement of extremities
7. Level of consciousness, response to stimuli
8. Level of pain, return of protective reflexes
9. IV therapy and patency of catheter."

This is a significant deviation in the standard of care for both OR nurse and CRNA. **[Request P/P for documentation of Nurse's Notes and Job descriptions for Circulating RN and CRNA]**

7/28	<p><u>Post-op Orders</u> p. 21 VS per recovery room, IV @100/hr., IV antibiotic ordered for every 8 hours, meds. for pain, muscle spasms, up to BR, elevate arm above heart in am, sling elevator and hang hand high above heart, watch neuro-vascular checks to hand and notify if any problems, next surgery planned for day after tomorrow.</p>	<p>Should have had IV infusing as per order, lost precious time attempting to insert IV's, requiring insertion of central line (large catheter into main vein) in order to give medications. <i>It will be important to determine what happened to this IV, how long had it been out or did they just discover that it had infiltrated into the tissues and was no longer in the vein.</i></p>
7/28 11:55pm	<p><u>Nurse's Narrative</u> (p.38) BP 140/68, HR 100, RR 60, 98.3 Returned to room by stretcher, oriented, respirations labored, coughing up blood tinged sputum, wife at bedside, VS done, voices increased drowsiness. P. Sorkin, RN</p>	<p>According to the document included in the hospital record "Procedure to the Recovery Care Outside of the PACU or OR" (p. 39), vital signs are to be done on arrival to the floor, then every 5 mins. until they are stable. Ms. Sorkin started with #4 on this sheet that states once protective reflexes have returned, vital signs can be done every 30 mins. for 2 hours. Under "other" on the bottom of this form it states "if the patient presents with stable vital signs initially along with the return of his protective reflexes, place NA for #2 and #3 and go directly to #4". A patient that is breathing 60 times in a minute and having labored breathing is not stable, should not be left alone and the doctor and supervisor notified immediately. This is a significant deviation in the standard of care.</p> <p>There is no full post-operative assessment done by this nurse on return to the floor, specifically with regard to the cardiac and resp. systems. This is a significant deviation in the standard of care. <u>CV</u>: failed to document heart sounds, murmurs, gallops, friction rubs, apical pulse compared to radial pulse and peripheral pulses (quality, rate, rhythm, presence of all) presence of absence of jugular vein distention (indicates vascular congestion and fluid backing up), <u>Resp</u>: failed to inspect the chest for bilateral chest expansion and equality and respiratory pattern (rate, quality, depth and rhythm). Failed to palpate, percuss and auscultate the lungs.</p>

7/29
12:30am Nursing Supervisor called due to increased breathing and congestion, resp. remain labored, arm in sling with ice, cock up splint intact, alert and oriented at present.

Again respiratory and cardiac assessment was not done.

7/29
?-1:20am See cardio-pulmonary arrest sheet. 1:20am to ICU portable oxygen in progress, EKG monitor intact, anesthesia personnel, Dr. Wright, nursing supervisor, central line and foley catheter intact. BP 158/100

Missing from the record. This is critical, if the hospital is unable to produce a jury will assume that the information on the missing record was so damaging that it was destroyed. In *Carr v. St Paul Fire and Marine Insurance Company*, the court found that the plaintiff had been greatly hampered in proving what the hospital employees had done because the records had been destroyed. Therefore the jury could consider the effect of the destruction when it determines the facts.

The goals in the treatment of pulmonary edema are: to improve oxygenation of blood, decrease anxiety and the amount of blood coming back to the heart and treat the cause. Decreasing anxiety and blood returning to the heart is done by administering morphine, as well as Lasix and nitroglycerine paste, both of which decrease the amount of fluid returning to the heart . Morphine and lasix were used in this case. ***If this condition is recognized early and treated appropriately it should not be fatal!***

7/29
12:50am Blood Gas Results (p. 51)
pH 7.112 (7.35-7.4)
pCO2 52.8 (34-45)
pO2 60 (92-100)
HCO3 17 (23-27)
O2% 80% (96-100)
Receiving 100% oxygen by bag

This blood gas was done 30 mins. before the patient was transferred. It usually takes 5 mins. to get the results back. He should have been intubated for these results. It will be important to ask the CRNA and ER physician what their rationale was for not doing it.

Arterial blood gas (ABG) studies drawn at 12:50am, to assess Mr. B. J.'s oxygenation showed hypoxia, acidosis and hypercarbia:

- pH 7.112 (Severe acidosis; normal= 7.35-7.45)
- pO2 60 (Hypoxia-lack of oxygen; normal = 80-100)
- pCO2 56 (Hypercarbia; normal = 35-45)
- 80% (Normal 95-100%)

These values are consistent with failure to move oxygen into the lungs and carbon dioxide out of the lungs. A pH of below 7.25 if left untreated, will result in respiratory arrest, which occurred in this case. Mr. B. J. needed have a breathing tube placed at this time, but this was not done until over 30 mins. later, after he was transferred to the ICU and had stopped breathing.

Inserting an endotracheal tube at this time would have enabled them to suction out the lungs very well to remove these frothy secretions that were "pouring" from his mouth and nose as described by Mr. Angelo and Dr. Wright in their progress notes.

1:15am CXR (p. 54) No previous film is available for comparison. " Diffuse pulmonary infiltrates with areas of consolidation in the central portion of both lungs" CXR at 1:50am - ET tube seen 5 cm above the carina. Impression of both films- diffuse pulmonary edema, aspiration cannot be excluded.

7/29
1:30am ICU Nurses Notes (p. 41)
BP 140/86, SVT, receiving O2 by ambu bag. NS started at 20cc/hr via one port of central line catheter. Placed on cardiac monitor, in SVT at rate of 160, agitated, fighting, foley catheter with 400cc of dark urine, bLewising form mouth, lungs sounds with diffuse rhonchi through, does not respond to verbal stimuli.

1:32am oral airway placed, Cardizem 25 mg given IV over 3 mins. per P. Baker, nursing supervisor.

It is concerning that Mr. B. J. did not have any urine output after the lasix was given.

Only nurse practioners are covered by the Va. Nurse Practice Act to prescribe medications. Therefore unless this nursing supervisor is also a certified nurse practioner she had no right to prescribe or tell other nurses to given Cardizem. **This is practicing medicine without a license and is a definite deviation in the standard of care.** A side effect of Cardizem is to slow the heart too much. It can also worsen pulmonary congestion (which he had) and cause any degree of different heart blocks. This drug was not appropriate for this heart rhythm.

The heart rhythm Mr. B. J. was in is called supraventricular tachycardia. According to the ACLS algorithm, a flow chart of guidelines for treatment of different types of heart rhythms published by the American Heart Association, a heart rate over 150 in an unstable patient should be immediately cardioverted [shocked with electricity]. Other things that can be done while getting ready for this procedure is to try vagal maneuvers, like carotid massage, where a certain area is massaged in the neck to try to stimulate the vagus nerve and slow the heart down. If any drugs are given, the drug of choice for this heart rhythm is Adenosine. Cardizem is given for a different rhythm entirely, called atrial fibrillation or atrial flutter, where one area in the upper chambers of the heart, the atria, is controlling the heart's pacemaker.

1:36am Respiratory arrest. Sinus bradycardia in 50's. See code blue sheet.

Cardizem did not make Mr. B. J. stop breathing. This more than likely occurred because there was a 40 min. delay in intubation and 40 mins. of poor ventilation. His last and only blood gas was done at 12:50am. It showed the pH of his blood at that time was 7.12 and he needed to be intubated (breathing tube place) at that time. (See p. 16) His pH was more than likely a lot lower and his CO2 much higher. (Although we can't know this for sure since no ABG was done.) A Cardiologist should be able to address this issue. When a person isn't being ventilated effectively or unable to move air into and out of the lungs effectively on their own, their carbon dioxide level increases. It is the level of carbon dioxide (CO2) in the blood and not the oxygen level that drives the respiratory center in the brain. As the CO2 level increases, the drive to breathe decreases, until you eventually stop breathing.

There are no heart rhythm strips until 1:49am documented in chart. He appeared to have a slow heart rhythm but must not have had a pulse because CPR was continued.

Times are conflicting
1:27am

Cardio-Pulmonary Arrest Form
(p. 41) Cardizem 25mg IVP
Intubated by D. Angelo, CRNA

See ACLS algorithm for supraventricular tachycardia.

There is no documentation that the position of the endotracheal tube was verified by listening for equal and bilateral breath sounds or by a CO2 detector. This is placed on the end of the endotracheal tube and changes color if CO2 is detected. *It will be important to determine how did they know the ETT was in the lungs instead of the esophagus when a blood gas analysis was not done.* Failure to check the position and failure to perform a blood gas after intubation is a deviation in the the standard of care.

1:35am Atropine 1mg given

See algorithm for pulseless electrical activity (PEA) and explanation on narrative summary (p. 6-8). This medication is given to try to speed up the heart.

1:36am	Epinephrine 1mg given, no pulse. Code in progress. CPR epinephrine and atropine given	Epinephrine should be given every 3-5 mins. In this case it was given 3 times 1-2 mins. apart. It is doubtful that this harmed the patient or caused his death.
1:45am	Lasix given, oxygen saturation 78%	It is concerning that Mr. B. J. had no urine output after 2 doses of lasix. This medication works by pulling fluid out of the lungs and blood vessels and into the kidney to be excreted in the urine. It usually works very quickly. According to the autopsy there were no obstructions in the kidney or ureters and the kidneys were not congested. I have no explanation for this. There was no ABG (blood gas analysis) after the initial one at 12:50pm. This is done to assess the effectiveness of ventilation and used to determine if Sodium Bicarbonate should be administered. This is a significant deviation in the standard of care.
1:50am	CXR done, CPR, atropine and epinephrine given until code called and pronounced dead at 2:10am, continued to have no urine output.	CXR showed the endotracheal tube (breathing tube) was in good position.

7/29

Progress Notes (p.6) Dr. Wright-ER physician. Called by nurse supervisor because patient unresponsive, and froth coming from mouth. Mr. B. J. pouring frothy stuff from his mouth and was being helped by ambu bag. In sinus tachycardia. Ordered lasix IV and morphine but no IV. CRNA unable to intubate, all nurses tried to find an IV but failed, right subclavian central line inserted and lasix and morphine given, started to respond to verbal stimuli, taken to ICU, an EKG done prior to transfer showed SVT, BP was good,, was given 25 mg Cardizem IV, heart rate dropped to 80-90. At this moment I was notified that patient is not breathing and alerted the CRNA who tried to ventilate with ambu , but no air was going in. He tried to intubated, could not the first time, Tried again and could intubate him orally. HR was 30 on the monitor, but had no pulse. CPR was started and atropine and epinephrine given, but Mr. J. Never recovered. (Period of apnea before arrest was 1 ½ mins.)

[Request copy of job description and duties of ER physician in hospital emergencies] In smaller hospital's it is often the ER physician that may be the only physcian in the hospital during the night. He is sometimes referred to as the house officer.

It will be important to determine who is ultimately responsible for the medical care the patient received once Dr. Peters arrived. The ER physician who is use to treating emergencesis, and may be more familiar with ACLS, or the patient's attending, an orthopedic surgeon. Need to have expert address.

Also need to have addressed responsibility of CRNA for deciding when to intubate, when an ER phycian is present. I feel they share the responsibility but I can see how finger pointing may occur here.

States BP is stable, but how do we know since no vital signs are recorded. We cannot take the MD's word, since this note was written after he died and may be self serving. Most of his note coincides with other accounts, namely the CRNA's, but they may have collaborated before written or the last person to write their note may have looked back at the previous note.

If Dr. Wright was familiar with the ACLS algorithms, he would have known that Diltizem is not used for this heart rhythm and even though he did not tell the nurse to give he did know that it was given. See narrative summary for further explanation of this. (p. 6)

Dr. Wright failed to order another ABG while on floor to assess his ventilation or an ABG after he was intubated. **This is a departure from the standard of care.**

7/29 3:10am	<u>Progress Notes</u> (p. 7) Dr. Peters Arrived after Dr. Wright inserted central line. CRNA unable to intubate, 2mg morphine given, followed by 2mg more and lasix IV, foley inserted, obtained 400cc of urine and not a drop after that, even after 80mg lasix, In spite of this patient actually improved and sent to ICU, EKG showed SVT given 25 mg Cardizem with HR down to 85. Noted that patient was not breathing, so bag and mask tried and failed. After that breathing tube was finally able to be inserted. HR down to 30, but no pulse. CPR started, but pulse never returned. Aspiration or post extubation laryngospasm are the most likely cause of pulmonary edema.	Same as p.22
7/30 7:30am	<u>Progress Note</u> (p. 8) CRNA in respiratory distress on arrival and was being assisted with ambu, I took this over., was very easy to ventilate. Reddish froth coming from mouth. They were having trouble with IV access, after several attempts the ER inserted central line, after lasix and morphine patient seemed to improve and only needed assistance with ambu. After arriving in ICU, given Cardizem, went into respiratory arrest and cardiac arrest to follow. Intubated patient in approx. 1 ½ mins.	

7/30
8:00am

Progress Note by Dr. Wright
Additional history about patient that was said to me yesterday by Dr. Peters was that he noted something coming out of his ETT (endotracheal tube) in OR and he may have aspirated.

This may be self-serving. No stomach contents seen in lungs during autopsy.

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Nurse Practice Act, Statutes and Regulations, Commonwealth of Virginia, 1996.

Standards of Clinical Nursing Practice, American Nurse's Association, 1991.[From which all other nursing specialty organization standards are based]

REQUEST FOR PRODUCTION

1. A copy of the job descriptions, standards of performance, roles and responsibilities and qualifications that were in place for the year 1996 for:
 - CRNA
 - Circulating Nurse
 - PACU nurse (post anesthesia care nurse)
 - RN on medical surgical floor
 - ER physician
 - Nursing Supervisor
2. A copy of the Table of Contents for every policy and procedure manual located in the operating room areas, PACU, nursing department and anesthesia department.
3. A list of references and textbooks in the medical surgical floor, operating room areas, PACU and anesthesia department. (This will allow you to see what textbooks they regard as authoritative and important to have as references for their staff) Will need to be researched for trial.
4. A copy of the contract between the hospital and Dr. Wright and Mr. Angelo, CRNA. (To establish if they are considered employees or independent contractors. Could also ask for check stubs, tax returns or similar supporting data.)
5. A copy of all policies and procedures which were in effect on July 28, 1996 which set out or specify the scope of conduct of patient care to be rendered by the medical-surgical nursing staff in a post-operative patient.
6. A copy of all policies and procedures which were in effect on July 28, 1996 which set out or specify the scope of conduct of patient care to be rendered by the nursing staff in the operating room, including the CRNA.
7. A copy of all policies and procedures regarding nursing orders, nursing standards of care, standards of practice, practice parameters and guidelines, nursing practice policies, and nursing audit criteria for the:
 - Operating Room
 - PACU
 - Anesthesia Department
 - Medical Surgical Floor
8. A copy of the orientation skills checklist for the medical surgical nursing department.
9. A copy of the nursing orientation evaluation criteria for the medical surgical floor.
10. A copy of D. Sorkin's orientation skill checklist, orientation evaluation and orientation

schedule.

11. A copy of all policies and procedures relating to the care of the patient recovered in the OR.
12. A copy of the policy and procedure, protocols, guidelines for documentation by:
 - circulating nurse in the OR;
 - CRNA;
 - nurse on medical-surgical floor;
 - nurse in the post anesthesia care unit (PACU)
13. A copy of the discharge criteria for release of a patient from the OR or PACU.
14. A copy of the policy and procedure for completion of the pre-operative checklist.
15. A copy of the policy and procedure addressing documentation on “Multi-disciplinary Assessment”.
16. A copy of the policy and procedure for the completion of the “Pre-Anesthetic Summary”.
17. A copy of all policy and procedure, protocols, guidelines for documentation on the nursing flowsheet, nursing notes, and “OR Assessment/Nurse’s Notes”.
18. A copy of all policies and procedures regarding staffing and staffing requirements for nursing services.
19. A copy of all policies and procedures on the specific medical surgical floor regarding patient assignments.
20. A copy of all medical staff rules and regulations regarding admission of patients.
21. A copy of all written rules, regulations, policies, procedures, by-laws, memoranda or any instruments in writing regarding the roles, functions, duties or responsibilities of the ER Department staff when responding to hospital emergencies.
22. A copy of all written guidelines defining conditions requiring communication to the attending physician or anesthesia regarding patient status, problems, etc.
23. A copy of all policies and procedures regarding in-house staff coverage and notification of in-house staff.
24. A copy of institutions plan for initiation of CPR and advanced life support. Include policies and procedures which outline all departments’ roles, responsibilities, etc.
25. A copy of all policies and procedures regarding the Code Team.
26. A copy of all policies and procedures regarding cardiac and respiratory distress, arrest or

conditions requiring resuscitation.

27. A copy of all policies and procedures regarding who may perform special procedures, under what circumstances, and under what degree of supervision with respect to providing ACLS.
28. A copy of all policies and procedures regarding maintenance of a patent airway.
29. A copy of all policies and procedures regarding emergency administration of oxygen.
30. A copy of all policies and procedures regarding resuscitation or ambu bags.
31. A copy of all policies and procedures regarding Advance Cardiac Life Support (ACLS).