ARRT Trap-Buster Master Guide — Part 6 of 6: Patient Care, Infection Control & Legal/Ethics

High-Yield Isolation Precautions, Medical Emergencies, Vital Signs, Informed Consent & Healthcare Law Traps

1. Transmission-Based Isolation Precautions & Sterile Technique Traps

Precaution Tier	Key Pathogens (Registry Favorites)	Required PPE & Room Setup	Classic ARRT Exam Trap
Standard Precautions	All patients (blood, body fluids, non-intact skin, mucous membranes)	Gloves for fluid contact; mask/eye shield if splash risk; hand hygiene before & after every patient.	Never recap used needles by hand; use one-handed scoop technique or safety sheath only.
Contact Precautions	**MRSA, VRE, *C. difficile* (C. diff)**, RSV, scabies, impetigo, draining wounds	**Gloves + Gown** upon room entry; dedicated or disinfected mobile X-ray equipment.	***C. diff* Trap:** Alcohol hand sanitizer does **NOT** kill *C. diff* spores. Must wash hands with **soap and water**!
Droplet Precautions	**Influenza, Meningitis, Pertussis**, Mumps, Rubella, Diphtheria, COVID-19 (routine)	**Surgical mask** within **3 to 6 feet** of patient (large droplets fall quickly; do not stay suspended).	Does *not* require an N95 respirator or negative-pressure room unless aerosol-generating procedures occur.
Airborne Precautions	**"MTV": Measles (Rubeola), Tuberculosis (TB), Varicella** (Chickenpox / Disseminated Shingles)	**Fit-tested N95 respirator** + **Negative-Pressure Airborne Infection Isolation Room (AIIR)**.	**Transport Trap:** Put a **surgical mask on the patient** during transport (never put an N95 with exhalation valve on a patient).
Protective (Neutropenic)	Immunocompromised patients (chemotherapy, bone marrow transplant, severe burns)	**Positive-pressure room**; tech wears mask, sterile/clean gown, and gloves to protect the *patient*.	Airflow is opposite of TB: air blows *out* of the room so hallway germs cannot enter.

STERILE FIELD & MOBILE C-ARM / PORTABLE ISOLATION TRAPS

- **Sterile Field Boundaries:** Only the **top surface** of a sterile drape is sterile (hanging edges below table level are unsterile). A sterile gown is only sterile in front from the **chest/shoulder level to the waist**, and sleeves from **2 inches above the elbow to the cuff**.
- **Mobile Isolation Bagging ("Clean Tech / Dirty Tech"):** The "dirty" tech touches the patient and places the covered IR behind the patient; the "clean" tech operates the portable machine controls and unwraps the outer plastic bag without touching its outside surface.
- **Order of PPE Removal (Doffing):** Remove the most contaminated items first: **1. Gloves → 2. Goggles/Face Shield → 3. Gown → 4. Mask/Respirator** (outside the room for Airborne), followed immediately by hand hygiene.

2. Medical Emergencies, Vital Signs & Patient Positioning Traps

Emergency / Condition	Key Signs & Registry Presentation	Immediate Technologist Action & Positioning
Syncope / Orthostatic Hypotension	Dizziness, pallor, cold sweat (diaphoresis), lightheadedness when sitting or standing up quickly.	Assist patient slowly to a **supine or Trendelenburg position** (feet elevated 15°–30°) to restore cerebral blood flow.
Dyspnea / CHF / COPD / Asthma	Shortness of breath, wheezing, air hunger, inability to breathe lying flat (orthopnea).	Place in **Fowler's (45°–60°) or Semi-Fowler's (30°–45°)** upright position. *Trap:* High-flow O_2 (>2–3 L/min) can suppress breathing drive in severe COPD patients!
Hypoglycemia (Insulin Shock)	**Rapid onset:** Shakiness, cold clammy skin, slurred speech, confusion, irritability (fasted NPO diabetic).	If conscious and able to swallow, give **fast-acting oral sugar** (juice, glucose tablets). Do *not* give insulin.
Hyperglycemia (Diabetic Ketoacidosis)	**Slow onset:** Flushed dry skin, extreme thirst, frequent urination, fruity/acetone breath, Kussmaul breathing.	Requires medical intervention, IV fluids, and insulin; monitor airway and call rapid response.
Shock (Hypovolemic / Cardiogenic / Septic)	Hypotension (low BP), **tachycardia** (weak thready pulse), cool pale clammy skin, restlessness, low urine output.	Keep patient flat/supine (or modified Trendelenburg), keep warm with blankets, maintain airway, call code/rapid response.
Seizure (Tonic-Clonic)	Loss of consciousness, rigid muscle contraction followed by rhythmic jerking.	Ease patient to floor, protect head, loosen tight clothing, turn to **side (recovery position)** after jerking stops. **Never** put anything in the mouth or restrain limbs.

Chest Tube & Foley Bag Gravity Traps	Patient transported with pleural chest drainage unit or urinary Foley catheter bag.	Both must **ALWAYS stay below the level of the chest** / **bladder** (never place on patient's lap or raise above bed level) to prevent fluid backflow and tension pneumothorax/ UTI.

NORMAL ADULT VITAL SIGNS & TUBE PLACEMENT BENCHMARKS

- **Pulse:** 60–100 bpm (Bradycardia < 60; Tachycardia > 100) | **Respirations:** 12–20 breaths/min | **Blood Pressure:** < 120/80 mmHg (Hypertension ≥ 130/80) | **SpO_2:** 95%–100%.
- **Endotracheal (ET) Tube Tip: 3 to 5 cm (1.5–2 in) above the carina** (level of T4–T5). | **Central Venous Catheter (CVC/PICC) Tip:** Lower **superior vena cava (SVC)** or cavoatrial junction (just above right atrium). | **Swan-Ganz Tip:** Right or left **pulmonary artery**.

ARRT Trap-Buster Master Guide — Part 6 (Continued): Legal, Ethics & Communication

Intentional vs. Unintentional Torts, Consent Rules, Scope of Practice & Patient Rights

3. Legal Doctrines, Torts & Malpractice Traps

Legal Term / Doctrine	Exact Registry Definition	Classic Clinical Example on the ARRT Exam
Assault Intentional Tort	The **threat** or attempt to touch or harm a person without consent, causing fear or apprehension.	Verbally threatening a patient (e.g., *"If you don't hold still, I'm going to tape you down to the table"*) without touching them.
Battery Intentional Tort	Actual **unlawful physical contact** or touching of a person without their consent (no injury required).	X-raying the wrong patient, imaging the wrong limb, applying physical restraints without a doctor's order, or continuing an exam after the patient says *"Stop."*
False Imprisonment Intentional Tort	Unlawful restraint or detention of a person against their will without legal justification.	Locking a competent adult in an X-ray room, refusing to let them leave, or unnecessarily strapping/restraining a cooperative patient.
Defamation (Libel vs. Slander) Intentional Tort	Damaging a person's reputation via false statements to a third party. **Slander** = spoken; **Libel** = written.	Writing false derogatory remarks in a patient's chart (**libel**) or gossiping in the cafeteria that a patient has an STI or drug problem (**slander**).
Invasion of Privacy / HIPAA	Breaching confidentiality or exposing a patient's body unnecessarily.	Leaving a patient uncovered in a busy hallway, discussing patient results in an elevator, or looking up a relative's chart without a care role.
Negligence Unintentional Tort	Failure to use reasonable care expected of a prudent technologist, resulting in patient injury (requires Duty, Breach, Causation, Damages).	Forgetting to put side rails up on a sedated patient who falls off the stretcher, or failing to check pregnancy status before a pelvic CT.
Res Ipsa Loquitur *"The thing speaks for itself"*	Negligence so obvious that any layperson recognizes it without needing an expert witness to prove breach of duty.	Dropping a patient off the X-ray table, burning a patient with hot equipment, or imaging the wrong side during surgery.
Respondeat Superior *"Let the master answer"*	Vicarious liability holding the **employer / hospital** legally responsible for negligent acts of its employees during work duties.	The hospital is sued alongside the staff technologist when the tech negligently injures a patient during a scheduled shift. (Tech is still personally liable!)

4. Informed Consent, Patient Identification & Ethics Traps

- **Implied vs. Informed (Written) Consent:** Routine non-invasive X-rays (e.g., chest, hand, spine) rely on **implied consent** (patient arrives and cooperates). Invasive procedures (angiography, arthrography, myelography, IV contrast, biopsies) require signed **informed consent**.
- **Who Explains the Procedure vs. Who Witnesses:** The **physician** performing the procedure must explain the risks, benefits, and alternatives to obtain valid informed consent. The **radiologic technologist** may only verify understanding and sign as a **witness** to the patient's signature.
- **Who Can Sign Consent:** Must be a **competent adult (≥ 18 years old)** or an **emancipated minor** (married, in the military, self-supporting/living independently, or a parent). Unemancipated minors require a parent or legal guardian, except in life-threatening emergencies where delay risks life/limb.
- **Two Patient Identifiers Rule (Joint Commission):** Always verify at least **two identifiers** (full name + date of birth or medical record number) before every exam. **Never use room number or bed number** as an identifier!
- **ARRT Standards of Ethics (Code vs. Rules):** The **Code of Ethics** is aspirational (voluntary professional ideals); the **Rules of Ethics** are mandatory, enforceable standards—violating them (e.g., falsifying CE credits, practicing impaired, felony convictions, HIPAA breaches) results in ARRT sanctions or revocation.
- **Scope of Practice Trap:** Technologists **never** give a preliminary or final radiographic diagnosis to a patient or family member. Direct all diagnostic questions to the ordering physician or radiologist.

TOP 4 COMMUNICATION & PATIENT TRANSFER EXAM TRAPS

- **Non-English Speaking Patients:** Always use a **certified medical interpreter** (in-person or video/phone service)—never use a minor child or untrained family member to translate informed consent or pregnancy screening.
- **Safe Body Mechanics:** Keep the load close to your center of gravity, maintain a wide base of support, bend at the **knees and hips** (never the waist), and **push rather than pull** heavy equipment.
- **Hemiplegic (Stroke) Wheelchair Transfer:** Position the wheelchair on the patient's **strong (unaffected) side** at a 45° angle to the X-ray table, lock the brakes, and move the strong side first.
- **Suspected Child or Elder Abuse:** Radiographers are **mandated reporters** in all states—report suspected non-accidental trauma (e.g., spiral fractures in non-walking infants, bucket-handle corner fractures, multiple healing stages) through your facility's reporting chain immediately.