

Interventional Radiology Nursing Plan of Care

The plan of care outlines the process of providing nursing care to patients preparing for, undergoing, and recovering from interventional radiology procedures. Nursing care must be individualized to meet each particular patient's unique needs and situation. This care should be provided in the context of disease or injury prevention, health promotion, health restoration, health maintenance, or palliative. The cultural, racial, and ethnic diversity must always be taken into account in providing nursing care.

The nurse must respect the patient's goals and preferences in developing and implementing a plan of care. A primary responsibility of the nurse is to provide patient and family education, and nurses should provide patients with appropriate information to make informed decisions regarding their care and treatment, within the confines of state and federal regulations and John Dempsey Hospital / UConn Health Center policies.

It is assumed that the nurse will work with other health providers in a coordinated manner throughout all procedural phases. The involvement of the patient, family, or significant others is paramount. The clinical environment and the patient's unique situation determine the appropriate degree of participation expected of the patient, family, or other health care providers.

Expected Perioperative / Perianesthetic Patient Outcomes and Associated Nursing Care by Phase

Patient Outcome #1: The patient is free from signs and symptoms of physical, chemical, or radiation injury or injury related to extraneous objects, positioning, or transfer / transport.		
Preprocedure Care	Intraprocedure Care	Postprocedure Care
Assess for baseline physiological and psychosocial health status per: <ul style="list-style-type: none"> • Patient Interview / Admission • History / Physical • Readiness to Learn / Barriers to Learning Assessment Confirm correct procedure site and supports patient / radiologist in marking site, as appropriate. Assess for patient skin breakdown, redness, skin blanching, or ecchymosis, or neuromuscular injury. Operate all equipment according to manufacturer's	Review baseline information; perform further assessment per procedure and patient. Reconfirm procedure site information and marking, as appropriate. Reassess for patient skin breakdown / irritation or neuromuscular injury. Compare preoperative and postoperative skin condition and document same. Deliver care per unit practice standards Operate all equipment according to manufacturer's	Review baseline information; perform further assessment per procedure and patient. Reassess for patient skin breakdown, redness, skin blanching, or ecchymosis, or neuromuscular injury. Plan for adequate personnel for transfer / transport of patient. Operate all equipment according to manufacturer's recommendations.

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Patient Outcome #2: The patient receives appropriate prescribed medication(s), administered safely.		
Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Confirm identity of patient prior to administering medications. Confirm medication allergies prior to administering medications.</p> <p>Follow all established JDH Standards for Medication Administration (NPM). Comply with approved recommendations from Institute for Safe Medication Practices (ISMP)</p> <p>Document all drugs administered. Label or otherwise clearly identify all drugs. Report any Adverse Drug Reaction per JDH Standards.</p>		

Patient Outcome #3: The patient is free from signs and symptoms of infection.		
Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Assess for any signs or symptoms of infection, report as appropriate.</p> <p>Collaborate with physician(s) regarding need for and timing of antibiotic administration.</p>	<p>Deliver care per unit practice standards</p> <p>Collaborate with physician(s) regarding need for and timing of antibiotic administration.</p>	<p>Provide patient and family teaching regarding wound care management, as per Patient Outcome #12.</p> <p>Collaborate with physician(s) regarding need for and timing of antibiotic administration.</p>

Patient Outcome #4: The patient has wound / tissue perfusion consistent with or improved from baseline levels established prior to the procedure.		
Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Assess for extremity pulse(s) strength and quality, as appropriate. Document findings</p> <p>Assess for patient skin breakdown, redness, skin blanching, or ecchymosis, or neuromuscular injury.</p> <p>Intervene to reduce or relieve pressure over bony prominences, or collaborate with other caregivers as appropriate.</p> <p>Plan for / coordinate therapeutic surface mattress bed, as needed.</p>		

Patient Outcome #5: The patient is at or returning to normothermia at the conclusion of the immediate postprocedure phase.		
Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Offer blankets to patients, as needed. Routinely monitor temperatures of all patients, continued monitoring per</p>	<p>Elevate temperature of imaging suite for very young and very old patients; adjust for other patients per procedure and patient</p>	<p>Apply warmed blankets, as needed; provide additional warming measures, using equipment according to</p>

individual patient assessment.	<p>condition.</p> <p>Pre-warm procedure bed and apply warmed cotton blankets to patient upon admission to suite whenever possible. Provide additional warming measures, using equipment according to manufacturer's recommendations.</p>	<p>manufacturer's recommendations.</p> <p>Routinely monitor postoperative temperature for inpatients; Enter explanatory note in nursing record if patient fails to achieve comfortable temperature without shivering prior to discharge. Monitor temperature of outpatients per individual assessment only.</p>
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Patient Outcome #6: The patient's fluid, electrolyte, and acid-base balance and his/her pulmonary and cardiac function are consistent with or improved from baseline levels established prior to the procedure.

Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Obtain preprocedure lab results to asses for renal function and Co-Ag results and collaborate with radiologist or PCP as needed.</p> <p>Baseline vital signs (VS) will be recorded on all patients upon admission, to include pulse, respirations, and blood pressure. Additional preoperative VS will be recorded as patient condition warrants.</p> <p>Monitor intake and ouput, as necessary; documents IV fluid type on nursing record.</p> <p>Monitor glucose levels of diabetics per protocol prior to procedure. Assess for medication history.</p>	<p>Monitor intake and output during procedures involving sedation.</p> <p>Monitor patient during Conscious Sedation per HAM 08-013.</p>	<p>Monitor VS and pulse oximetry for all patients, cardiac monitoring as needed. Compare postoperative readings to preoperative baseline readings and intraoperative values. Enter explanatory note in nursing record if patient fails to return to within 20% of baseline VS and pulse oximetry readings, or if EKG changes occur, and notified physician.</p> <p>Regulate fluid intake; monitors intake and output, as needed.</p> <p>Inspect dressing / wound site as appropriate. Do pulse checks per protocol or as ordered, if appropriate. Enter explanatory note in nursing record for unexpected bleeding or decrease in pulse strength / quality. Notify physician as needed.</p> <p>Collaborate with other team members regarding blood component replacement, <i>prn</i>.</p> <p>Monitor glucose levels of and offer food to diabetics per protocol following procedure.</p>

Patient Outcome #7: The patient demonstrates knowledge of the physiologic and psychological responses to the invasive and sedative procedure(s).

Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Assess patient's and family's understanding of the planned sedation.</p> <p>Assess patient's and family's understanding of the planned imaging procedure.</p> <p>Provide education as necessary and document on Interventional Radiology Assessment and Teaching Record (IRATR).</p> <p>Assess history of allergies or other reactions to medications, especially patient / family history of sedation problems and document same.</p>	<p>Reinforce patient teaching and review as needed. Consider barriers to learning when planning care.</p> <p>Reconfirm allergies / drug reactions.</p>	<p>Provide postoperative education related to anesthetic and invasive procedures to patients and families, as appropriate. Consider barriers to learning when planning educational interventions. Document teaching for ambulatory patients.</p> <p>Provide follow-up contact with patients and families to assess response(s) to sedative and imaging procedures on the next working day for ambulatory patients.</p>

Patient Outcome #8: The patient demonstrates knowledge of nutritional requirements related to the imaging and / or sedative procedure(s).

Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Provide patient and family education regarding NPO status as established by protocol, and documents same on IRATR.</p> <p>Assess compliance with NPO requirements upon admission; collaborates with other care givers, as needed.</p> <p>Monitor glucose levels of diabetics, per order.</p>	<p>Reconfirm NPO status, as needed.</p>	<p>Monitor glucose levels of and offer food to diabetics per protocol following procedure.</p> <p>Provide patient and family education regarding nutrition, as appropriate to the imaging / sedative procedure performed.</p>

Patient Outcome #9: The patient demonstrates knowledge of medication management.

Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Provide patient and family education regarding preprocedure medication management per protocol or as otherwise specified by the physician, and document same in IRATR.</p> <p>Assess compliance with</p>		<p>Monitor blood glucose levels of diabetics postoperatively per protocol and administer medication.</p> <p>Provide patient and family education regarding medications ordered for ambulatory patients.</p>

<p>medication management requirements upon admission; collaborates with other care givers, as needed.</p> <p>Monitor glucose levels of diabetics per protocol prior to procedure.</p>		
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Patient Outcome #10: The patient participates in the rehabilitation process, if only by comprehension.

Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Involve the patient in decision-making, discharge planning, and goal identification, as appropriate.</p> <p>Document responsible party for care of ambulatory patients receiving minimal to conscious (moderate) sedation.</p>	<p>Reinforce preoperative planning.</p>	<p>Reinforce preoperative planning. Provide patient and family teaching, as appropriate. Collaborate with other care givers, as appropriate.</p> <p>Complete W-10 prn</p>

Patient Outcome #11: The patient demonstrates knowledge of wound healing.

Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Provide basic patient and family teaching regarding wound healing and management, as appropriate.</p> <p>Assess ability of patient and family to comply with postoperative wound care. Collaborate with other care providers, as needed, to ensure proper postoperative wound management, especially ambulatory patients.</p> <p>Explain role of hand washing in infection control.</p>	<p>Reinforce patient & family teaching, as appropriate.</p>	<p>Provide / reinforce patient and family teaching regarding</p> <ul style="list-style-type: none"> • sequence of wound healing, • concerns related to wound healing, • dressing care and wound management techniques, & • goals of wound healing <p>Elicit patient & family's comprehension of teaching via explanation or return demonstration, as appropriate.</p> <p>Collaborate with physician regarding patients / families who do not comprehend or cannot return demonstrate proper wound care management.</p> <p>Reinforce role of hand washing in infection control.</p>

Patient Outcome #12: The patient participates in decisions affecting the periprocedural plan of care.

Preprocedure Care	Intraprocedure Care	Postprocedure Care
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<p>Ensure proper informed consent is obtained prior to start of invasive imaging procedure. Answer or refer questions, as appropriate.</p> <p>Ensure proper family or surrogate decision-makers are present / legal authorization is in chart.</p> <p>Discuss or refer questions, appropriate, regarding Advance Directives and Organ Donation (must be obtained with each admission).</p> <p>Advocate for patient's right to self-determination, resuscitative measures, life-sustaining treatment, and end-of-life decisions.</p>	<p>Confirm proper informed consent is obtained prior to start of invasive imaging procedure. Answer or refer questions, as appropriate.</p> <p>Review Advance Directive / Organ Donation status, as needed.</p> <p>Advocate for patient's right to self-determination, resuscitative measures, life-sustaining treatment, and end-of-life decisions.</p>	<p>Review Advance Directive / Organ Donation status, as needed.</p> <p>Advocate for patient's right to self-determination, resuscitative measures, life-sustaining treatment, and end-of-life decisions.</p>
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Patient Outcome #13: The patient's right to privacy is maintained.		
Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Provide measures to protect patient's personal privacy, such as linens, curtains, and seclusion, as needed.</p> <p>Secure / clearly label all patient belongings and valuables.</p> <p>Enter appropriate and accurate information into the patient's record.</p> <p>Discuss or release patient information only in the context of the patient's plan of care and with appropriate health professionals.</p> <p>Complies with UCHC HIPAA Policies.</p>		

Patient Outcome #14: The patient demonstrates / reports adequate pain relief.		
Preprocedure Care	Intraprocedure Care	Postprocedure Care
<p>Assess preprocedure comfort level through numerical scale of 1-10 or face pain scale, vital signs, and non-verbal cues.</p> <p>Explain or reinforce use of numerical / faces pain rating scale.</p> <p>Assess drug and non-drug methods by which patient has alleviated or reduced pain and /</p>	<p>Reinforce pre-procedure teaching regarding pain management.</p> <p>Assess comfort levels / level of consciousness during procedure. Collaborate with patient and other caregivers in regard to pain relief, as needed.</p> <p>Document medication or other pain relief modalities used.</p>	<p>Assess postprocedure comfort level through pain level spoken or FLACC scale (0-10), vital signs.</p> <p>Explain or reinforce use of numerical / faces pain rating scale.</p> <p>Review drug and non-drug methods by which patient has alleviated or reduced pain and /</p>

<p>or discomfort in the past.</p> <p>Collaborate with physician and patient to administer pain medication or implement non-drug methods, as appropriate.</p> <p>Document medication or other pain relief modalities used.</p>		<p>or discomfort in the past.</p> <p>Develop a plan with the patient/family for pain management at home. Explain action and dosing of medication(s), non-drug therapies, provide written and oral instructions.</p> <p>Collaborate with physician and patient to administer pain medication or implement non-drug methods, as appropriate.</p> <p>Record discharge pain scale rating that <u>patient</u> identifies as acceptable; enter note in patient record if pain rating is not acceptable and collaborate with physician for alternate postprocedure pain management plan.</p>
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<p>Patient Outcome #15: The patient's value system, life style, ethnicity, and culture are considered, respected, and incorporated as appropriate in the periprocedure plan of care, which reflects the patient's level of function and ability.</p>		
<p>Preprocedure Care</p>	<p>Intraprocedure Care</p>	<p>Postprocedure Care</p>
<p>The periprocedure plan of care will reflect the uniqueness of each patient and will be unrestricted by considerations of social or economic status, personal attributes or lifestyle, culture, ethnicity, or level of health.</p> <p>The plan of care across all phases of care will incorporate, but is not limited to:</p> <ul style="list-style-type: none"> • Cultural and ethnic practices • Spiritual and religious beliefs • Psychosocial barriers and / or support systems • Physical and / or cognitive limitations • Language barriers. 		

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