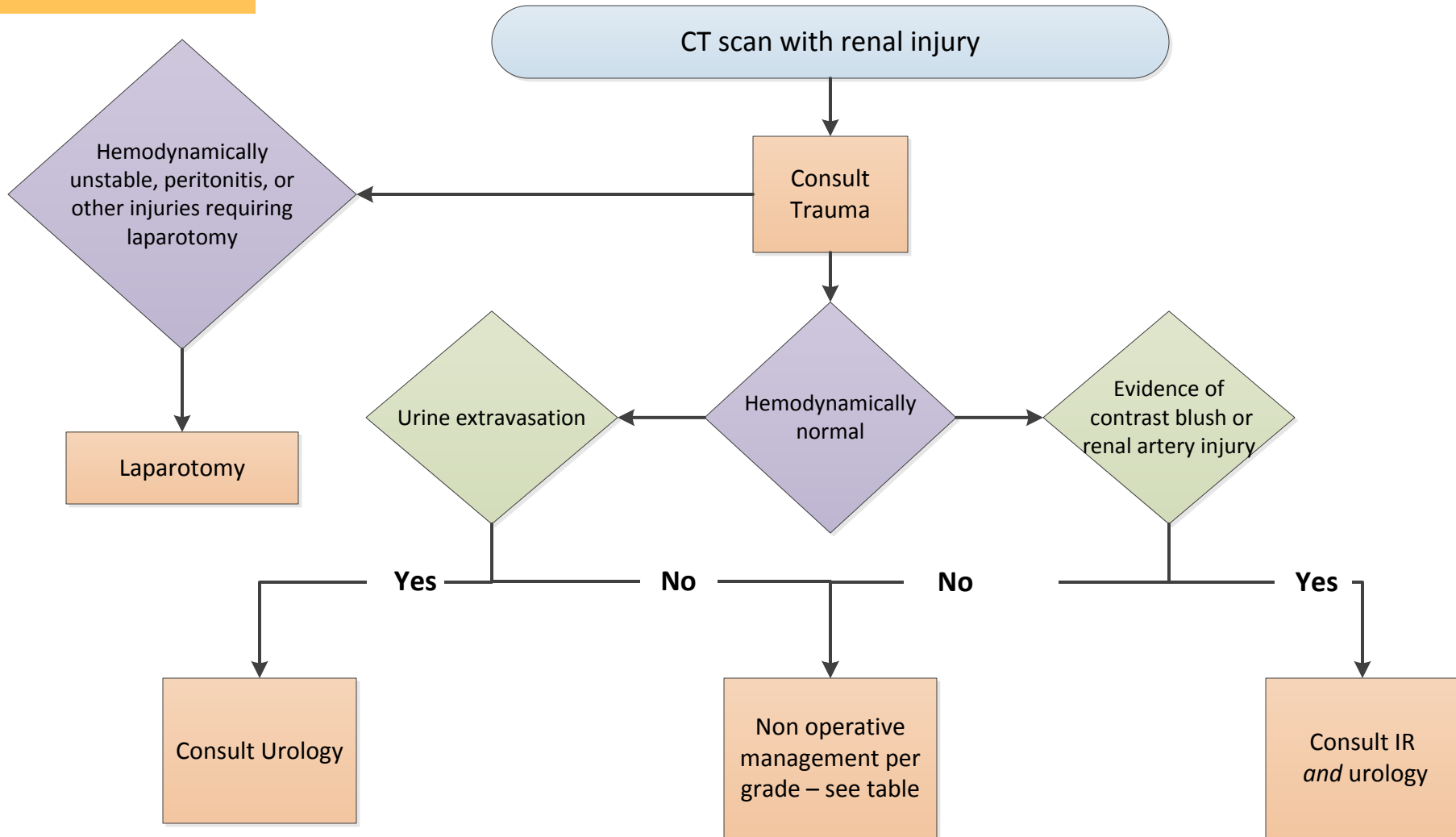


MHealth Fairview System Renal Injury Guideline



Renal Non-Operative Management

	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
Disposition	DC home if no hematuria AND Cr normal OR floor/ ED obs	Admit to floor	Admit to ICU or step-down unit with telemetry	Admit to ICU	Admit to ICU
Urology consult	No	No	Yes	Yes	Yes
Telemetry	No	No	Yes	Yes	Yes
Serial Hgb, BMP	Daily	Daily	Q12 h x 48h, then daily	Q8h x 24h, then Q12h x 2, then daily	Q8H x 24h, then Q12h x 2, then daily
Activity	Up ad lib	Up ad lib	Bedrest with bathroom privileges until HD stable x 24h	Bedrest with bathroom privileges until HD stable x 24h	Bedrest with bathroom privileges until HD stable x 24 hours
VTE prophylaxis start	Within 24h if Hgb and vitals stable	Within 24h if Hgb and vitals stable	Within 48h if Hgb and vitals stable	Within 48h if Hgb and vitals stable	Within 48h if Hgb and vitals stable
Repeat imaging	No	No	Per urology	Per urology	Per urology
Outpatient follow up	f/u with PCP	f/u with PCP	Per urology	Per urology	Per urology

Reference

Erllich, T, Kitrey, ND. Renal trauma: the current best practise. (2018) Therapeutic Advances in Urology 10(10):295-303.

AAST Solid Organ Injury Scale - 2018 Revision:

<u>Grade</u>	<u>Liver</u>	<u>Spleen</u>	<u>Renal</u>
I	– Subcapsular hematoma <10% surface area	– Subcapsular hematoma <10% surface area	– Subcapsular hematoma and/or parenchymal contusion without laceration
	– Parenchymal laceration <1 cm in depth	– Parenchymal laceration <1 cm depth – Capsular tear	
II	– Subcapsular hematoma 10–50% surface area; intraparenchymal hematoma <10 cm in diameter	– Subcapsular hematoma 10–50% surface area; intraparenchymal hematoma <5 cm	– Perirenal hematoma confined to Gerota fascia
	– Laceration 1–3 cm in depth and ≤ 10 cm length	– Parenchymal laceration 1–3 cm	– Renal parenchymal laceration ≤1 cm depth without urinary extravasation
III	– Subcapsular hematoma >50% surface area; ruptured subcapsular or parenchymal hematoma – Intraparenchymal hematoma >10 cm	– Subcapsular hematoma >50% surface area; ruptured subcapsular or intraparenchymal hematoma ≥5 cm	– Renal parenchymal laceration >1 cm depth without collecting system rupture or urinary extravasation
	– Laceration >3 cm depth – Any injury in the presence of a liver vascular injury or active bleeding contained within liver parenchyma	– Parenchymal laceration >3 cm depth	– Any injury in the presence of a kidney vascular injury or active bleeding contained within Gerota fascia
IV	– Parenchymal disruption involving 25–75% of a hepatic lobe	– Parenchymal laceration involving segmental or hilar vessels producing >25% devascularization	– Parenchymal laceration extending into urinary collecting system with urinary extravasation – Renal pelvis laceration and/or complete ureteropelvic disruption
	– Active bleeding extending beyond the liver parenchyma into the peritoneum	– Any injury in the presence of a splenic vascular injury or active bleeding confined within splenic capsule	– Active bleeding beyond Gerota fascia into the retroperitoneum or peritoneum – Segmental or complete kidney infarction(s) due to vessel thrombosis without active bleeding
V	– Parenchymal disruption >75% of hepatic lobe	– Shattered spleen	– Shattered kidney with loss of identifiable parenchymal renal anatomy
	– Juxtahepatic venous injury to include retrohepatic vena cava and central major hepatic veins	– Any injury in the presence of splenic vascular injury with active bleeding extending beyond the spleen into the peritoneum	– Main renal artery or vein laceration or avulsion of hilum – Devascularized kidney with active bleeding

- Vascular injury is defined as a pseudoaneurysm or arteriovenous fistula and appears as a focal collection of vascular contrast that decreases in attenuation with delayed imaging. Active bleeding from a vascular injury presents as vascular contrast, focal or diffuse, that increases in size or attenuation in delayed phase. Vascular thrombosis can lead to organ infarction.
- Grade based on highest grade assessment made on imaging, at operation or on pathologic specimen.
- More than one grade of organ injury may be present and should be classified by the higher grade of injury.
- Advance one grade for multiple injuries up to a grade III.

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