

2018 AAST-OIS - KIDNEYS

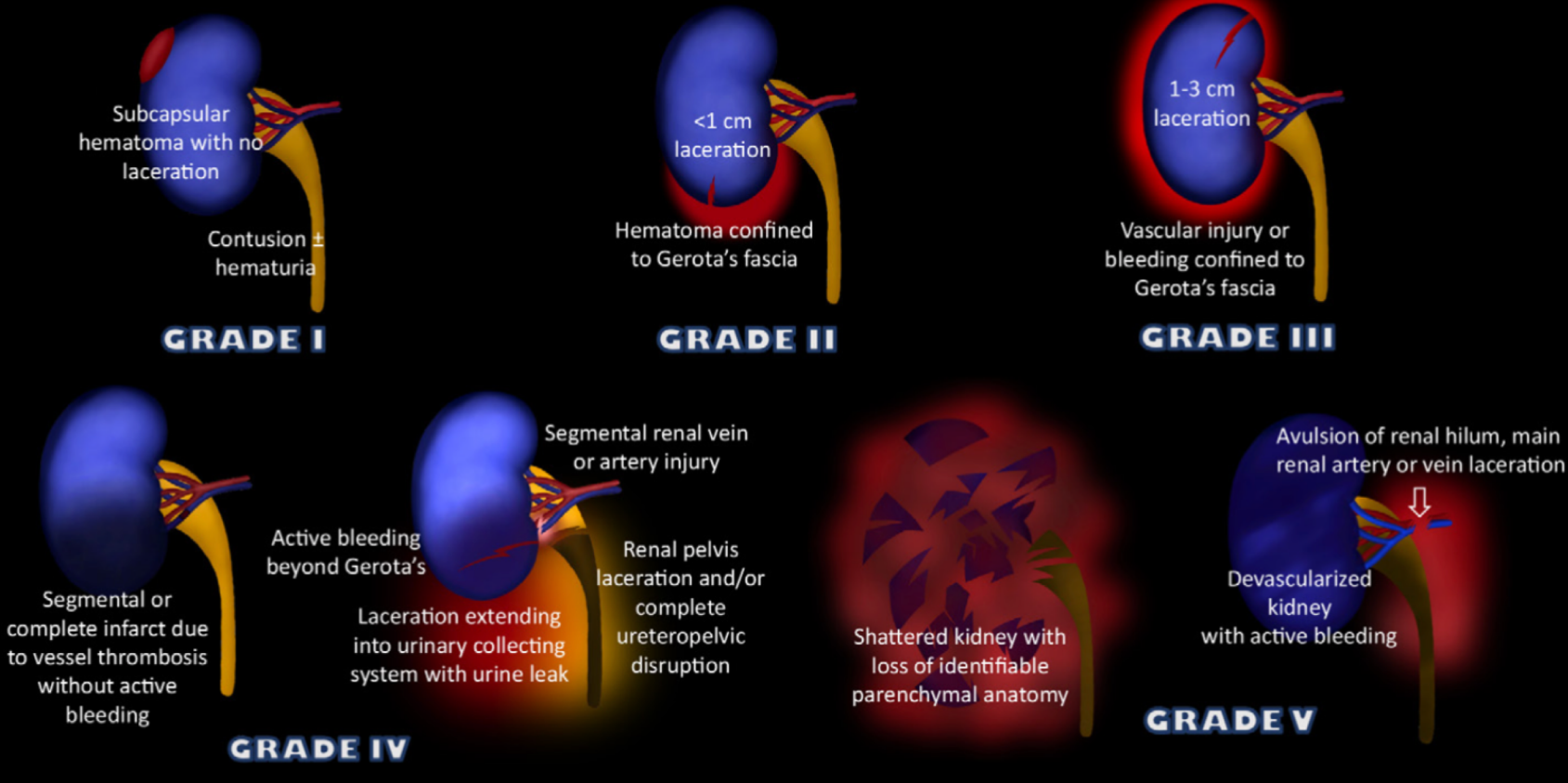


Figure 16. Schematic representation shows the revised 2018 AAST-OIS for renal injuries.

Kidney Injury Scale (2018 revision)

AAST Grade	AIS Severity	Imaging Criteria (CT Findings)	Operative Criteria	Pathologic Criteria
I	2	Subcapsular hematoma and/or parenchymal contusion without laceration	Nonexpanding subcapsular hematoma	Subcapsular hematoma or parenchymal contusion without parenchymal laceration
			Parenchymal contusion without laceration	
II	2	Renal parenchymal laceration ≤1 cm depth without urinary extravasation	Perirenal hematoma confined to Gerota fascia	Perirenal hematoma confined to Gerota fascia
			Nonexpanding perirenal hematoma confined to Gerota fascia	Renal parenchymal laceration ≤1 cm depth without urinary extravasation
III	3	Renal parenchymal laceration >1 cm depth without collecting system rupture or urinary extravasation	Renal parenchymal laceration >1 cm depth without collecting system rupture or urinary extravasation	Renal parenchymal laceration >1 cm depth without collecting system rupture or urinary extravasation
			Any injury in the presence of a kidney vascular injury or active bleeding contained within Gerota fascia	
IV	4	Renal pelvis laceration and/or complete ureteropelvic disruption Segmental renal vein or artery injury	Parenchymal laceration extending into urinary collecting system with urinary extravasation	Parenchymal laceration extending into urinary collecting system
			Renal pelvis laceration and/or complete ureteropelvic disruption	Renal pelvis laceration and/or complete ureteropelvic disruption
			Segmental renal vein or artery injury	Segmental renal vein or artery injury
			Active bleeding beyond Gerota fascia into the retroperitoneum or peritoneum	Renal pelvis laceration and/or complete ureteropelvic disruption due to vessel thrombosis without active bleeding
V	5	Main renal artery or vein laceration or avulsion of hilum Devascularized kidney with active bleeding Shattered kidney with loss of identifiable parenchymal renal anatomy	Main renal artery or vein laceration or avulsion of hilum	Main renal artery or vein laceration or avulsion of hilum
			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.