**GAN**

* **grade I**
  + hematoma: subcapsular, <10% surface area(1)
  + laceration: capsular tear, <1 cm  parenchymal depth(2)
* **grade II**
  + hematoma: subcapsular, 10-50% surface area(3)
  + hematoma: intraparenchymal <10 cm diameter(4)
  + laceration: capsular tear 1-3 cm parenchymal depth, <10 cm length(5)
* **grade III**
  + hematoma: subcapsular, >50% surface area of ruptured subcapsular or parenchymal hematoma(6)
  + hematoma: intraparenchymal >10 cm(7)
  + laceration: capsular tear >3 cm parenchymal depth(8)
  + vascular injury with active bleeding contained within liver parenchyma(9)
* **grade IV**
  + laceration: parenchymal disruption involving 25-75% hepatic lobe or involves 1-3 [Couinaud segments](https://radiopaedia.org/articles/couinaud-classification-of-hepatic-segments?lang=us) (10)
  + vascular injury with active bleeding breaching the liver parenchyma into the peritoneum(11)
  + grade III đa ổ(12)
* **grade V**
  + laceration: parenchymal disruption involving >75% of hepatic lobe(13)
  + vascular: juxtahepatic venous injuries (retrohepatic vena cava / central major hepatic veins)(14)

THẬN

* **grade I**
  + subcapsular hematoma or contusion, without laceration
* **grade II**
  + superficial laceration ≤1 cm depth not involving the collecting system (no evidence of urine extravasation)
  + perirenal hematoma confined within the [perirenal fascia](https://radiopaedia.org/articles/perirenal-fascia?lang=us)
* **grade III**
  + laceration >1 cm not involving the collecting system (no evidence of urine extravasation)
  + vascular injury or active bleeding confined within the [perirenal fascia](https://radiopaedia.org/articles/perirenal-fascia?lang=us)
* **grade IV**
  + laceration involving the collecting system with urinary extravasation
  + laceration of the renal pelvis and/or complete ureteropelvic disruption
  + vascular injury to segmental [renal artery](https://radiopaedia.org/articles/renal-artery?lang=us) or [vein](https://radiopaedia.org/articles/renal-vein-1?lang=us)
  + segmental infarctions without associated active bleeding (i.e. due to vessel thrombosis)
  + active bleeding extending beyond the [perirenal fascia](https://radiopaedia.org/articles/perirenal-fascia?lang=us) (i.e. into the [retroperitoneum](https://radiopaedia.org/articles/retroperitoneum?lang=us) or [peritoneum](https://radiopaedia.org/articles/peritoneum?lang=us))
* **grade V**
  + shattered kidney
  + avulsion of renal hilum or laceration of the main [renal artery](https://radiopaedia.org/articles/renal-artery?lang=us) or [vein](https://radiopaedia.org/articles/renal-vein-1?lang=us): [devascularisation of a kidney due to hilar injury](https://radiopaedia.org/articles/renal-vascular-pedicle-injury-2?lang=us)
  + devascularised kidney with active bleeding

LÁCH

**Classification**

* **grade I**
  + [subcapsular hematoma](https://radiopaedia.org/articles/subcapsular-splenic-haematoma?lang=us) <10% of surface area
  + parenchymal laceration <1 cm depth
  + capsular tear
* **grade II**
  + [subcapsular hematoma](https://radiopaedia.org/articles/subcapsular-splenic-haematoma?lang=us) 10-50% of surface area
  + intraparenchymal hematoma <5 cm
  + parenchymal laceration 1-3 cm in depth
* **grade III**
  + [subcapsular hematoma](https://radiopaedia.org/articles/subcapsular-splenic-haematoma?lang=us)>50% of surface area
  + ruptured subcapsular or intraparenchymal hematoma ≥5 cm
  + parenchymal laceration >3 cm in depth
* **grade IV**
  + any injury in the presence of a splenic vascular injury\* or active bleeding confined within splenic capsule
  + parenchymal laceration involving segmental or hilar vessels producing >25% devascularisation
* **grade V**
  + shattered spleen
  + any injury in the presence of splenic vascular injury\* with active bleeding extending beyond the spleen into the peritoneum