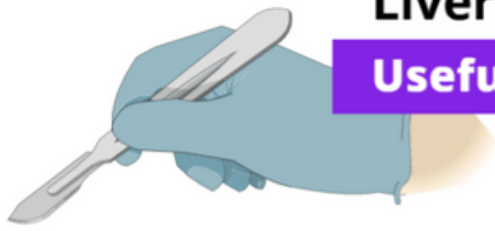


# Liver disease

## Useful tools for surgical risk assessment



### How to assess risk if you don't have a hepatic venous pressure gradient (HVPG) reading

#### Two post-operative surgical risk scores

##### [Mayo Post-Operative Surgical Risk Score Calculator](#)

- This score is made up of the original MELD score, the American Society of Anesthesiologists (ASA) class and patient age

##### [VOCAL-Penn Cirrhosis Surgical Risk Score](#)

- This score is made up of laboratory values (albumin, bilirubin, platelet count), age, BMI, NAFLD, ASA score, emergency surgery & surgery type
- VOCAL-Penn score may be used for finer stratification of surgical risk in patients with low MELD scores

#### Use of Child-Pugh class for assessing surgical risk

- Although the use of the Child Pugh for surgical risk assessment has been largely replaced by MELD containing models, Child Pugh may be useful in cases of low MELD but severe portal hypertension
- Perioperative mortality estimates from the published literature are
  - Child Pugh A ~10%
  - Child Pugh B ~30%
  - Child Pugh C ~60-70%

### How to assess risk if you have a hepatic venous pressure gradient (HVPG) reading

#### What is the Barcelona HVPG Nomogram?

##### [See published Barcelona HVPG nomogram, PMID 31330170](#)

- This nomogram is made up of the HVPG, American Society of Anesthesiologists (ASA) class & an assessment of whether the patient underwent high risk surgery (open abdominal, cardiovascular, thoracic)
- Of note, in this series, HVPG $\geq$ 20mmHg was associated with a 44% risk of death over 1-year of follow-up