

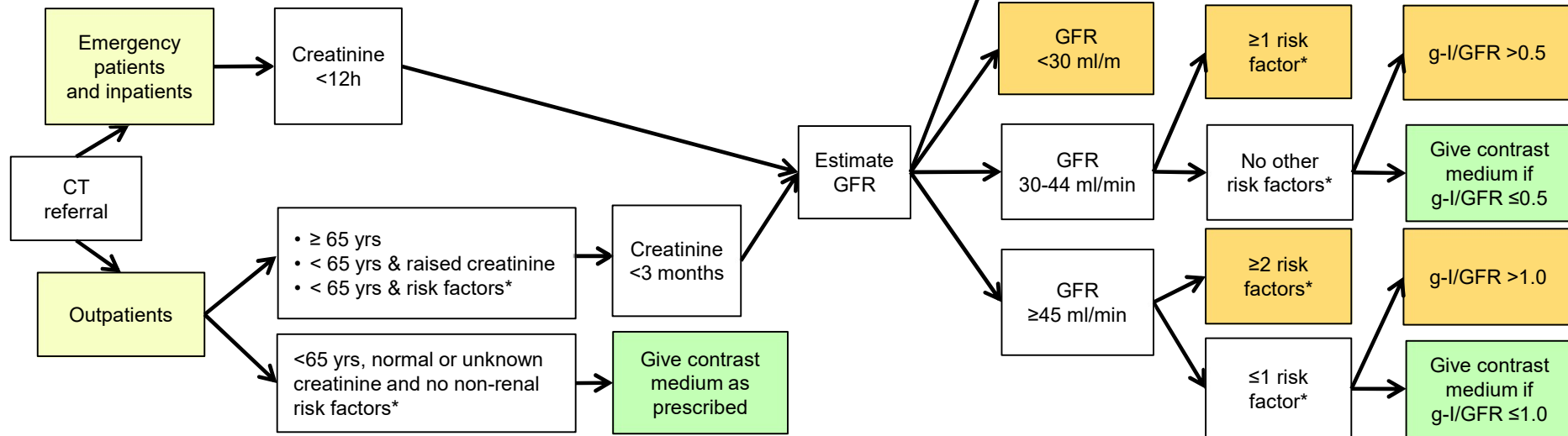


Risk assessment of contrast medium-induced acute kidney injury (CI-AKI) at CT



Swedish Society of Radiology and
Urogenital Radiology Guidelines
Version 01, September 2019
Eur Radiol. 2018;28:5384-95.

g-I/GFR ratio preferably based
on absolute GFR in ml/min.
g-I = gram iodine



Green boxes

Radiographer/radiology nurse may give contrast medium as prescribed **or** change to low kV-protocol or equivalent to reach an adequate g-I/GFR ratio without consulting a radiologist.

Orange boxes

Consult a radiologist!

Evaluate each patient individually according to the text to the right.
Give contrast medium if the benefit outweighs the risk.

For further details see reference regarding Swedish guidelines:
Eur Radiol. 2018;28:5384-95

1. Evaluate estimated GFR, stable or conditions indicating unstable renal function (see orange box below) making eGFR unreliable and assess number of non-renal risk factors. Risk increases with increasing g-I/GFR ratio and decreasing GFR, especially below 30 mL/min.
2. If major risk for CI-AKI consider if a) scan without contrast medium will give adequate information b) another diagnostic modality could be used and c) the dose could be reduced by low kV-technique or equivalent if contrast medium must be used.

*Non-renal risk factors to assess:

1. Diabetes mellitus
2. Chronic heart failure NYHA III/IV
3. NSAID, nephrotoxic drugs
4. Dehydrated (vomiting, diarrhoea, ileus)

**Severely ill patient /other

1. ICU-patient, multiple comorbidities, deteriorated general condition
2. Unstable renal function (shock, acute heart failure, sepsis, acute renal disease, etc.)
3. Recent major surgery
4. Repeated contrast medium injections within 72h
5. Falsely raised creatinine-based estimated GFR (e.g. abnormal low muscle mass or liver cirrhosis)