Metformin and Contrast Media

1. For patients at high risk of contrast nephropathy, such as patients with \textbf{impaired renal function and diabetic patients}, examinations not requiring iodinated contrast media, the use of a minimum volume of non-ionic low-osmolality contrast and discontinuation of drugs such as NSAIDs should be considered.

2. Intravascular contrast media is not contra-indicated in persons with normal renal function and receiving metformin.

3. Patient's renal function should be assessed before the investigation.

4. For patients with normal renal function, metformin should be discontinued at the time of the investigation and withheld for the subsequent 48 h.

5. For patients with abnormal renal function:
   a) Alternative non-contrast examinations should be considered.
   b) Patients who require administration of intravascular contrast media, their renal function should be reevaluated in 24-48 h.
   c) Clinicians may consider replacing metformin with other hypoglycaemic agents if patient's diabetic control is not satisfactory upon the withhold of metformin.
   d) If metformin has not been discontinued before investigation, it must be taken off at the time of investigation, and reinstated only if the cause of renal impairment is reversible and renal function becomes normal on follow-up evaluation.