

Syllabus	CT_IK_01, CT_IK_04, CT_IK_06, CT_IK_15
Topic	Percutaneous closure of atria septal defects

**a)**

List the 2 most common types of atrial septal defects (2marks)

- 1) .....
- 2) .....

**b)**

List two Indications for percutaneous closure of an atrial septal defect (2 marks)

- 1) .....
- 2) .....

**c)**

What signs or symptoms are likely to be present in a patient presenting for closure of an ASD? (4 marks)

- 1) .....
- 2) .....
- 3) .....
- 4) .....

**d)**

In the context of diagnosing an atrial septal defect, what is a positive bubble test? (2 marks)

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**e)**

List 4 reasons why is a transoesophageal echocardiogram (TOE) essential during the procedure? (4 marks)

- 1) .....
- 2) .....
- 3) .....
- 4) .....

**f)**

List 6 major complications that may occur during the procedure. (6 marks)

- 1) .....
- 2) .....
- 3) .....
- 4) .....
- 5) .....
- 6) .....



<p>air embolism can cause transient myocardial ischaemia, leading to ST changes on ECG; demonstrable regional wall movement abnormalities are seen on TOE. Intervention is not required, and cardiac function usually recovers spontaneously.</p> <ul style="list-style-type: none"> <li>● <b>Arrhythmias:</b> Atrial fibrillation or flutter is common during placement of the device due to atrial manipulation. It is self-limiting and rarely causes haemodynamic compromise; if still present at end of the procedure, synchronized DC cardioversion should be attempted before cessation of anaesthesia.</li> <li>● <b>Thrombus formation on device or applicator:</b> Full anticoagulation should be commenced immediately, and the patient admitted for close observation. Careful neurological testing &amp; monitoring should prompt immediate cerebral CT and neurosurgical referral if a new deficit is observed (this is very rare).</li> <li>● <b>Embolization of the device:</b> Very rare, with an experienced team and TOE guidance is used.</li> <li>● <b>Pericardial haemorrhage and tamponade:</b> Caused by wire damage to a cardiac structure. A pericardial drainage catheter or sternotomy may be required if the bleeding is severe or continuous.</li> <li>● <b>Myocardial infarction</b></li> <li>● <b>Bleeding</b></li> <li>● <b>Stroke</b></li> </ul>	<p>1 mark for each point (Max. 6 marks)</p>	
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References:

1) Calvert PA, Klein AA. Anaesthesia for percutaneous closure of atrial septal defects. CEACCP (2008) 8(1)16-20. <https://academic.oup.com/bjaed/article/8/1/16/277618>