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| **2AA — Pre-operative chest x-ray** |
| **Summary of Intervention** |
| Chest radiographs in the pre-operative assessment of adult, elective surgical patients prior to routine surgery is not recommended.  **This guidance applies to adults aged 19 years and over.** |
| **Number of interventions in 18/19** |
| Data are not currently available |
| **Proposal** |
| Pre-operative chest radiographs should not be routinely performed in adult elective surgical patients. However, they may be appropriate in specific cohorts of patients, including when the following criteria apply:  — Patients undergoing cardiac or thoracic surgery  — Patients undergoing organ transplantation or live organ donation  — At the request of the anaesthetist in:  — Those with suspected or established cardio-respiratory disease, who have not had a chest radiograph in the previous 12 months, and who are likely to go to critical care after surgery  — Those with a recent history of chest trauma  — Patients with a significant smoking history who have not had a chest radiograph in the previous 12 months, or those with malignancy and possible lung metastases  — Those undergoing a major abdominal operation, who are at high risk of respiratory complications. |
| **Rationale for Recommendation** |
| In the UK, most patients are seen up to 12 weeks before surgery in preoperative assessment clinics, where a structured history and examination is performed by a nurse. Relevant preoperative investigations may also be taken according to locally developed protocols.  Routine preoperative investigations are expensive, labour intensive, and of questionable value. Excessive pre-operative testing may cause anxiety for patients, delays in treatment due to spurious results, and further unnecessary investigation or treatment, without changing outcomes or influencing perioperative management of the patient. In addition, some investigations can be associated with increased patient morbidity, for example the small dose of ionising radiation (0.2mSv) that every patient is subjected to during a chest radiograph. A more structured approach is therefore required.  In general, patients who are healthy or having relatively non-invasive surgery may require few, if any, pre-operative tests.  In the case of imaging, national guidelines agree that routine use of preoperative chest radiographs is not indicated in adult elective surgical patients, but that it may be appropriate in specific cohorts of patients. NICE recommend that chest radiographs should not be routinely offered before elective surgery. |
| **References** |
| 1. O’Neill F, Carter E, Pink N, Smith I. Routine preoperative tests for elective surgery: summary of updated NICE guidance. BMJ 2016; 354: doi: https://doi.org/10.1136/bmj.i3292.  2. NICE Guidelines. Routine preoperative tests for elective surgery. NICE Guidelines (NG45); 2016. https://www.nice.org.uk/guidance/NG45.  3. RCR iRefer: Making the best use of clinical radiology. Eighth edition. 2017. Royal College of Radiologists. http://guidelines.irefer.org.uk/adult/#Tpc90.  4. Puddy E, Hill C. Interpretation of the chest radiograph. CEACCP 2007; 7: 71-75.  5. Klein AA, Arrowsmith JE. Should routine preoperative testing be abandoned? Anaesthesia 2010; 65: 974-76.  6. Association of Anaesthetists of Great Britain and Ireland. Pre-operative assessment and patient preparation: the role of the anaesthetist 2. AAGBI 2010. www.aagbi.org/sites/default/files/preop2010.pdf. |