

**Audit Template**

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| **Audit Title:**  Audit of Tumour Markers | |
| **Lead Auditor:**  Peter West | **Audit date(s):**  2nd June 2011 |
| Please indicate if **Local / Regional / National Audit**  Please indicate which hospital & location or region  **Regional:Thames Audit Group** | **Report Author:**  Name:Peter West  Email: peterwest@nhs.net |
| **Aims of the Audit:**  To establish what tumour markers were being measured,how they were being used,wheher laboratories issued guidelines for use of tumour markers,whether they were being measured in fluids other than serum and whether reference ranges were quoted. | |
| **Audit Method and Outcome(s):**  An audit questionnaire was devised by the lead author and ratified by the Thames Audit Group(TAG)committee.It was then circulated to all members of the TAG and the responses analysed by the lead auditor with the findings presented by the lead auditor at the meeting of the TAG on 2nd June 2011.  Common markers such as AFP,CEA,CA125 and PSA were offered by most laboratories,few laboratories issued guidelines for the use of tumour markers,most of the markers were being used to monitor an established tumour,few laboratories measured these markers in fluids other than serum and all quoted reference ranges on their reports but few stated that these were not well defined and should be used as a guidance only or quoted the method of measurement used.  Recommendations were drafted by the lead auditor,discussed and ratified by the TAG committee in September 2011. | |
| **Audit Recommendations / Standards:**  1. Tumour markers can contribute usefully to patient management but awareness of their limitations is essential  2. Tumour markers are not helpful for diagnosis in patients with non-specific symptoms.  3. Many tumour markers are raised in several cancers and in certain benign diseases so cannot either identify or exclude suspected malignancy,especially early stage disease reliably owing to low diagnostic sensitivity and low specificity.  4. The main application of tumour markers is in monitoring after treatment.  5. Measurement of both AFP and HCG is mandatory in the management of germ cell tumours.  6. Measurement of CEA is recommended for post operative follow up of patients with stage 2 and 3 colorectal cancer if further surgery or chemotherapy is an option.  7.PSA may be used for detecting disease recurence and monitoring treatment in patients with prostate cancer.  8. In some high risk patients,measurement of AFP,CA125 or HCG may aid early detection of hepatocellular carcinoma,ovarian cancer or pancreatic cancer respectively.  9. CA125 should be measured in primary care in women reporting having any of the following symptoms on a persistent or frequent basis,particularly more than 12 times a month-persistent abdominal distension,early satiety and/or loss of appetite,pelvic or abdominal pain and increased urinary urgency and/or frequency in order to reduce the risk of delayed diagnosis of ovarian cancer and if CA125 is>35IU/ml,an ultrasound of the abdomen and pelvis arranged.  10. Opportunistic screening with a panel of tumour markers is not helpful nor measurement of CA125 in males or PSA in females.  11.When interpreting results,particularly serial results,clinicians need to be aware that results obtained by different methods are not necessarily compatible.It is recommended that laboratories indicate the method used when reporting results for tumour markers.  12.Laboratory reports should indicate that quoted reference ranges are only a guide and that results should be interpreted together with non-biochemistry investigations and within the clinical contect.  13.Guidelines provide a helpful framework to promote best practice with local ownership being essential for successful implementation and to this end,senior members of the biochemistry department should work with rheir clinical colleagues,in particular their oncologists to produce such guideines which should be readily accessible to all staff.  14.Inappropriately used tumour marker results can cause patients additional anxiety and stress and unnecessary investigations such as biopsy may be associated with serious side effects and may delay correct diagnosis and treatment. | |
| **Please indicate to whom and when audit presented &/or circulated&/or published:**  Audit findings presented at the meeting of the Thames Audit Group on 2nd June 2011. | |
| **Audit recommendations / standards ratified by … and when:**  Recommendations ratified by the Thames Audit Group committee in September 2011. | |
| **Date of audit report:**  2nd June 2011 | |
| **Audit documents for upload to** [**http://www.acb.org.uk/whatwedo/science/audit.aspx**](http://www.acb.org.uk/whatwedo/science/audit.aspx) | |