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| **Vitamin B12** | | | |
| **Synonyms** | |  | Cobalamin |
| **Clinical Indication** | |  | Investigation of suspected vitamin B12 deficiency. Follow-up of megaloblastic anaemia, macrocytosis or nutritional anaemias. Detection of vitamin B12 deficiency due pernicious anaemia or folic acid deficiency. In other situations, low levels of vitamin B12 does not necessarily indicate significant clinical deficiency.  The measurement of B12 is not indicated in patient receiving B12 supplementation |
| **Part of Profile / See Also** | |  | Haematinics |
| **Request Form** | |  | Combined Pathology manual Blood form or ICE request |
| **Availability / Frequency of Analysis** | |  | On request  Minimum retesting interval is 3 months. |
| **Turnaround Time** | |  | Same day (Monday to Friday) |
| **Patient Preparation** | |  | None required |
| **Sample Requirements** | |  |  |
|  | **Specimen Type** |  | Serum |
|  | **Volume** |  | 1 ml |
|  | **Container** |  | Yellow top (SST)  Or  Paediatric green (Li-Heparin) tube  Or  Paediatric Orange (Lithium Heparin) tube |
| **Reference Range & Units** | |  | Adults: 120 - 900 ng/L  Reference: Local data (01/08/2017) |
| **Interferences** | |  | Samples should not be taken from patients receiving therapy with high Biotin doses (>5mg/day) until at least 8 hours following last biotin administration. |
| **Interpretation & Clinical**  **Decision Value (if applicable)** | |  | Low B12 results occur in Pernicious Anaemia, achlorhydria, vegans, poor diet or malabsorption and up to 10% of elderly. Intrinsic factor positive patients should receive life-long parental B12 therapy. The specificity of a low B12 of <180 ng/L for tissue deficiency is only 50%. If dietary deficiency is suspected a trial of oral therapy with clinical review may be appropriate. Please contact your Haematologist for further advice if required. |
| **References** | |  |  |
| **Test code** | |  | B12 |
| **Lab Handling** | |  | Primary sample stored at 4 degrees C |