

Division of Laboratory Medicine

Immunology

Aspergillus fumigatus precipitins

General information

Precipitin testing: These tests detect the presence of IgG antibodies to *Aspergillus fumigatus*, *Aspergillus* precipitins - see also: Farmer's lung and Avian Precipitins

Specimen transport: At room temperature

Repeat frequency: On appearance of new symptoms

Special precautions: None

Laboratory information

Normal reference range: 0-40 mg/L

Volume and sample type: 7ml clotted blood

Method: FEIA (Fluoroenzyme immunoassay)

Turnaround time (calendar days from sample receipt to authorised result): Median – 4

Participation in EQA Scheme: UK NEQAS for FUNGAL and RELATED ANTIGENS

Clinical information

Indications for the test: Allergic bronchopulmonary aspergillosis - IgG antibodies are a useful aid to diagnosis in the following settings:

- Bronchopulmonary aspergillosis; usually presents as deteriorating or brittle asthma. IgE antibodies should also be checked.
- Aspergilloma; these may form in cavities or bronchiectatic lung. For example, this test is used to check for aspergilloma in patients with cystic fibrosis.
- Hypersensitivity pneumonitis 24 hours after inhalation of spores.

Factors affecting the test: *Aspergillus* antibodies are not a recommended test for the investigation of the majority of cases of invasive aspergillosis in immunocompromised hosts.

Interpreting results:

IgG antibodies are infrequent in healthy individuals.

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In hypersensitivity pneumonitis, IgG antibodies are usually present alone. IgG antibodies, without IgE antibodies can also be seen in some cases of sub acute invasive aspergillus.

In bronchopulmonary aspergillosis and aspergilloma a mixture of IgE and IgG antibodies are usually present. Bronchopulmonary aspergillosis can be caused by species other than *A. fumigatus*: if there is a high index of suspicion, we can send a sample to the reference laboratory to look for antibodies to other *Aspergillus* species. In allergic rhinitis and asthma, where aspergillus is a relevant allergen, IgE antibodies dominate.

ICE reference: *Aspergillus* Precipitins

(Last updated December 2020)