### Who we are

Majority owned by the NHS, but with the commercial freedom to invest in innovation, Viapath are on a mission to transform pathology services in the UK. We provide pathology services to the NHS, private hospitals and other organisations both across the country and internationally.

### What we do

All our laboratories are either accredited or working towards accreditation by UKAS to ISO15189. To view our laboratory accreditation status please follow this link:

http://www.viapath.co.uk/about-viapath/quality-and-governance/accreditations

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### TEST OVERVIEW

#### Description

Cholinesterase levels and phenotype studies can be used to predict the potential degree of post-operative paralysis following the use of the short reacting muscle relaxant suxamethonium or mivacurium. Cholinesterase can be used to monitor exposure to organic phosphorus compounds in the agricultural and chemical industries.

#### Clinical details

Cholinesterase is involved in the metabolism of succinylcholine, mivacurium, procaine, chlorprocaine, tetracaine, cocaine, heroin, and other drugs. Following the introduction of the de-polarising muscle relaxant succinylcholine (Scoline, Suxamethonium, Anectine) to facilitate tracheal intubation, a number of patients experience a prolonged period of paralysis (Suxamethonium apnoea) lasting several hours instead of a few minutes. Most of these sensitive individuals have been found to possess one or more genetic variants of cholinesterase. Succinylcholine sensitivity may also be acquired as the result of the decreased total cholinesterase activity that is a feature of a number of disease states, primarily liver disease, malignancy and malnutrition, as well as iatrogenic causes and the physiological decrease which is observed in some pregnancies.

#### Related condition or disease

Suxemethonium apnoea

#### Reference range

3.0 - 9.0 Warning cards will be issued to all patients regarded as being ‘at risk’ whether by virtue of an episode of suspected apnoea or by the possession of a genetic variant. Please contact the laboratory for more information.

#### Units

IU/mL

#### Department

Biochemical Sciences Department

#### Laboratory

Reference Chemistry Laboratory at St Thomas'

#### Location

Viapath at St Thomas' Hospital

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### ORDERING INFORMATION

#### Sample type and Volume required

1 mL of serum or heparinised plasma (400 uL absolute minimum). Please note that blood collected into EDTA, citrate or fluoride/oxalate is not suitable for analysis. Grossly haemolysed samples are not suitable.

#### Turnaround time

3 weeks

#### Storage and transport

Samples are stable for 1 month at 4°C and for at least 1 year at -20°C. Samples can be sent by first class post.

#### Contacts

Reference Chemistry Laboratory at St Thomas'  
0207 188 1264  
4th floor, North Wing  
St Thomas' Hospital  
Westminster Bridge Road  
London SE1 7EH

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### How can we help?

We have a number of partnering options to suit your needs, whether you require this specific test or a range of services, we are here to help. Contact one of our friendly Business Development Managers for more information, or visit our website.

www.viapath.co.uk

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