

Human Tetanus immunoglobulin Q & A

What has caused the shortage?

Human tetanus immunoglobulin (intramuscular), which is produced by a single manufacturer, is currently experiencing production problems.

How long is the shortage expected to last?

Supplies may not be restored until the end of February 2012. Alternative supplies are being investigated.

What is tetanus?

Tetanus is a life-threatening but preventable disease that affects the muscles and can cause breathing problems. It is caused when germs that are found in soil and manure get into the body through open cuts or burns. Tetanus cannot be spread from person to person.

How many people get tetanus each year?

Over the last ten years, the number of cases of tetanus in the general population has been low, with less than ten cases each year. During this period there have been 4 reported deaths due to tetanus.

Tetanus generally occurs in older unvaccinated people although there have been clusters of cases in injecting drug users (2003/04) either due to contaminated drugs or to contaminated sites of injection.

Is tetanus a fatal disease?

Tetanus is rare in the UK because of the effectiveness of the immunisation programme; however, the bacteria that cause disease are always present in soil. They cannot be eradicated from our environment. Consequently, anyone who is not fully protected against tetanus by vaccination, is at risk from exposure to the organism that causes tetanus.

What is tetanus immunoglobulin?

Tetanus immunoglobulin is a solution that contains antibodies which provides immediate protection against tetanus. It is given either as a protective measure to stop people with a high risk injury from getting tetanus or as a treatment for cases of tetanus. The doses of tetanus immunoglobulin recommended for treatment are much higher than that for prevention.

How is tetanus immunoglobulin different from tetanus vaccine?

The difference between tetanus vaccine and immunoglobulin is that the vaccine produces an immune response that allows the recipient to make their own antibodies. If you have never been vaccinated, it takes several months for protective antibodies to be generated. If you have been vaccinated in the past it can take up to a week for antibody levels to be boosted. Tetanus immunoglobulin provides immediate protection against tetanus, but the protection is only temporary because the body gradually loses the antibodies naturally and does not make its own antibodies.

When is tetanus immunoglobulin used for preventing tetanus?

Recommendations for the use of tetanus immunoglobulin are available from 'Immunisation against Infectious Disease'
(http://www.dh.gov.uk/dr_consum_dh/groups/dh_digitalassets/@dh/@en/document/s/digitalasset/dh_103982.pdf)

The use of tetanus immunoglobulin to prevent tetanus is determined by the nature of the injury and the vaccination status of the individual. Tetanus immunoglobulin (250iu) is recommended to provide immediate protection in individuals with tetanus prone wounds (further details available from 'Immunisation against Infectious Disease') who are not fully vaccinated (or up to date for their age) against tetanus. Such individuals should also be offered a dose of tetanus vaccine to provide longer term protection.

Tetanus immunoglobulin may also be recommended for vaccinated individuals who have a 'high-risk' tetanus prone wound e.g. a wound which is also heavily contaminated with manure/soil or an abscess in an injection site. In a highly contaminated wound, toxin production from the bacteria can outpace the capacity of the individual to produce their own antibodies to neutralise the toxins, thus additional 'immediate' antibodies are required.

What should hospitals do for individuals at risk of tetanus during the current shortage?

To preserve stock for those at greatest risk, tetanus immunoglobulin should be restricted to those in whom it is truly indicated. Most tetanus prone wounds in vaccinated individuals do not require immunoglobulin.

For individuals where the risk assessment suggests they require tetanus immunoglobulin, attempts should be made to get stock from neighbouring hospitals. If tetanus immunoglobulin is not available, the HPA recommends the use of intramuscular human normal immunoglobulin as an alternative. Further information is available on the HPA website
<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tetanus/Guidelines/>

What should hospitals do for individuals with tetanus during the current shortage?

Intramuscular tetanus immunoglobulin can be used for the treatment of tetanus, but the volume required may be difficult to tolerate and stock levels are low. As an alternative, the HPA recommends that, human normal immunoglobulin for intravenous use may be used as for treatment of clinical tetanus. Further information is available on the HPA website
<http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tetanus/Guidelines/>
Stocks of Vigam for the emergency treatment of tetanus infection can be ordered by telephoning Bio Products Laboratory Customer Services on 020 8258 2251. (This is a 24-hour service).