



Human Tetanus Immunoglobulin Q & A

Who supplies Human Tetanus immunoglobulin (Intramuscular)?

Human Tetanus immunoglobulin (Intramuscular) has previously been in short supply. However, BPL (Bio Products Laboratory) has confirmed that normal supplies of the product has resumed. Healthcare Trusts should contact BPL (Bio Products Laboratory Tel: 020 8258 2200 for the supply.

In the event Healthcare trusts are not able to source Tetanus immunoglobulin, the HPA has recommended Human normal immunoglobulin as an alternative to TIG for the treatment and prophylaxis, whilst TIG supplies remain limited. Further information is available on the PHE website <http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tetanus/Guidelines/>

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 6 reported deaths due to tetanus, which have all occurred in incompletely immunised adults.

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?

Yes, it can be in unimmunised individuals. 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 containing antibodies which provide 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. Higher doses of tetanus immunoglobulin are recommended for treatment than for prevention.

How is tetanus immunoglobulin different from tetanus vaccine?

The difference between tetanus vaccine and tetanus 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 from this product naturally and does not make its own antibodies in response to immunoglobulin.

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/documents/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 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 when there is a shortage of tetanus immunoglobulin?

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 PHE website <http://www.hpa.org.uk/Topics/InfectiousDiseases/InfectionsAZ/Tetanus/Guidelines/>

What should hospitals do for individuals with suspected tetanus during a shortage of tetanus immunoglobulin?

In January 2013, the HPA convened an expert working group to review the published evidence on the use of TIG for the treatment of clinically suspected tetanus. Whilst this review is being completed, the working group recommends the use of intravenous products only for the treatment of clinically suspected tetanus. If supplies of TIG are limited, as an interim measure, intravenous HNIG (Vigam) is advised based on weight.

- For individuals less than 50 kg, 5,000 IU or 250mls intravenous HNIG (Vigam)
- For individuals over 50 kg, 10,000IU or 500mls intravenous HNIG (Vigam)

Healthcare Trusts should contact BPL (Bio Products Laboratory Tel: 020 8258 2200 for the supply. (see Health Protection Agency, HPA Tetanus Expert Working Group (2013) [Interim Guidance on the use of Tetanus Immunoglobulin for the treatment of Tetanus](#))