Immunoglobulins: general information
August 2020
About Public Health England

Public Health England exists to protect and improve the nation’s health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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Published August 2020
PHE publications gateway number: 2020214

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General information

This document was originally published as the Immunoglobulin handbook in 2008 and the full history of updates to the guidance can be found here: https://www.gov.uk/government/publications/immunoglobulin-when-to-use#history

The human immunoglobulin preparations prepared by Bio Products Limited (BPL) issued by Public Health England (PHE) and NHS laboratories are prepared from pooled plasma from non-UK blood donors. Non-UK pooled plasma has been used since March 1999 due to theoretical risk of the transmission of nvCJD. All immunoglobulins are prepared from HIV, hepatitis B and hepatitis C negative donors.

Subgam (Human Normal Immunoglobulin) (HNIG) from Bio Products Laboratory (BPL) is not licensed for prophylactic use against Hepatitis A, Measles or Rubella. The product is, however, known to contain similar levels of measles antibody as licensed products. The levels of hepatitis A antibody are around half the level of the licensing requirements for such a product (although higher than some other available HNIG preparations) but global supplies of suitable products are limited. Therefore PHE is recommending the use of Subgam for hepatitis A prophylaxis but at a higher dose.

The following preparations for intramuscular use are held centrally by Movianto and ordered through the Rabies and Immunoglobulin Service (RigS) Colindale (0330 128 1020, 8 am -5:30 pm) for delivery via ImmForm, and also by certain Regional PHE and NHS laboratories:

- human normal immunoglobulin
- human varicella-zoster immunoglobulin
- human hepatitis B immunoglobulin
- human rabies immunoglobulin
- diphtheria antitoxin

The following intramuscular preparations are available and are chargeable through BPL Tel: 020 8258 2200 (24 hours):

- human tetanus immunoglobulin*
- human anti-D immunoglobulin
- human hepatitis B immunoglobulin**
- human rabies immunoglobulin**
- human varicella-zoster immunoglobulin**
Only tetanus immunoglobulin for IM use is now available from BPL. An IV tetanus immunoglobulin product is no longer available.

Tetanus specific immunoglobulin (TIG) should be used for the treatment and prevention of tetanus if suitable stock can be sourced. However, where TIG cannot be obtained, PHE recommends that human normal immunoglobulin (IV and IM) preparations can be used. Further details about this are available in the Tetanus: guidance for health professionals document on the website https://www.gov.uk/government/publications/tetanus-advice-for-health-professionals.

These immunoglobulin preparations are available from PHE although they can be purchased directly from BPL where clinicians wish to use them outside of the national Joint Committee of Vaccination and Immunisation guidance.

Vaccines, antitoxins and immunoglobulins are purchased by the Department of Health specifically for use within the NHS. Similarly products distributed by PHE on behalf of the Department are provided for use within the NHS.

Only patients eligible for NHS treatment (those with an NHS number) are eligible to receive immunoglobulin products free of charge. Overseas patients can receive products through an NHS Hospital or by temporary registration with a GP.

Private clinics and hospitals are advised to secure stocks of the products they require directly from the manufacturers.

Supplies of normal immunoglobulin for intravenous administration may be obtained from the manufacturers. Details are available in the British National Formulary’s Index of Manufacturers, available at: http://www.bnf.org.uk/bnf/)

For dosage, precautions, contraindications and side effects please refer to individual product information.

Administration of Immunoglobulin

When a large volume injection, such as an intramuscular preparation of immunoglobulin is to be given, this should be administered deeply into a large muscle mass such as the anterolateral aspect of the thigh. The upper outer quadrant of the buttock can also be used for immunoglobulin injection.

If more than 3ml is to be given to young children and infants or more than 5ml to older children and adults, the immunoglobulin should be divided into smaller amounts and given into different sites.
Administration of Rabies Immunoglobulin (RIG)

As much RIG as possible should be infiltrated into the depth of the wound and around the site of the wound, with the rest of the RIG given in the anterolateral thigh. Where more than 3mls is to be given to young children or more than 5mls to older children and adults the immunoglobulin should be divided and given at different sites.

Vaccine and RIG must never be given at the same anatomical site, but can be given on the same day. RIG is not given after seven days post initiation of rabies PEP vaccine (or to an individual who is already partially immunised).


Normal and specific immunoglobulin

Advice on the use of normal immunoglobulin for:

- hepatitis A,
- measles,
- rubella
- polio

And

specific immunoglobulins for:

- varicella-zoster
- hepatitis B
- rabies
- tetanus

is also contained in the ‘Immunisation against Infectious Disease’ (the Green Book) https://www.gov.uk/government/collections/immunisation-against-infectious-disease-the-green-book

and further advice on the diseases and indications for immunoglobulin should be sought from this publication or the individual disease guidance found on the website: https://www.gov.uk/government/publications/immunoglobulin-when-to-use