INTERIM Guidelines on Post-exposure Assessment and Treatment of Rabies-prone Exposures (October 2025)

The HSE: National Health Protection Office wishes to acknowledge that this document is based on and adapted from Public Health Scotland's *Rabies: guidance on pre-exposure and post-exposure measures for humans in Scotland* and draws upon UKHSA's *Guidelines on managing rabies postexposure (January 2023)*.

Contents

Document history

Version	Date	Summary of Updates
1.0	1/7/2025	Initial version
1.1	10/10/2025	• Stepping down of risk categorisation of bat exposure to a sleeping adult • Reference to updated NIAC guidance on prioritising HRIG use in the most efficient and clinically effective manner to protect those at greatest risk • Clarification regarding immediate administration of HRIG following head and neck wounds • Clarification of language around post-exposure vaccine contraindications • Clarification regarding management of immunosuppressed patients • Removal of reference to exposure to urine in Table 1 – Category of Exposure and elsewhere in document • Expanded section on PET and immunosuppressed patients • Aligning Summary of Risk Assessment with amended guidance

This guidance document, although based on best available evidence on the safe management of rabies post-exposure prophylaxis, remains Interim until it has been signed off by the National Health Protections Office's Health Protection Advisory Committee - Infectious Diseases (HPAC-ID).

1. Background

1.1 Rabies is a viral infection that produces an acute encephalitis. The natural reservoirs of rabies virus are primarily carnivores and bats, but almost all mammals, including humans, are susceptible to rabies infection. All mammals, once infected with rabies, invariably die from the disease (with the possible exception of vampire bats). Bats are considered the original and principal reservoir hosts of lyssaviruses. In humans, rabies is considered invariably fatal, once symptoms develop.

1.2 Rabies is caused by members of the *Lyssavirus* genus, of which there are 17 recognised species. The most significant species in Europe - from the perspective of human infection - are Rabies virus (*Lyssavirus rabies* – RABV) responsible for 'classical' rabies seen primarily in terrestrial animals, and European bat lyssaviruses (EBLV-1 and EBLV-2). All members of the *Lyssavirus* genus have clinical presentations and severity profiles that are indistinguishable.

1.3 Lyssaviruses are readily excreted in the saliva of infected animals, and transmission occurs either by salivary inoculation via bites or scratches to the skin, or salivary contamination of exposed mucous membranes, especially those of the eyes and mouth. Lyssaviruses have been detected in the bladder epithelium of infected bats; however, there is no evidence that rabies spreads through urine. Other mammalian body fluids such as faeces and blood are also considered minimal risk and therefore contact with such fluids – in the absence of direct physical contact with an animal, or its saliva - is not considered hazardous.

1.4 Documented cases of rabies have arisen from organ transplantation, during aerosol exposure while spelunking (cave exploration) and laboratory accidents. Fomite transmission of rabies has not been reported. Person to person transmission is extremely rare and appears only to occur in the context of organ transplantation.

1.5 Each year, rabies causes at least 60,000 deaths globally, most especially in Asia and Africa where 95% of human deaths occur. India is considered to have the highest levels of rabies with an estimated 20,000 deaths annually.

1.6 Rabies prone exposures (RPE) can involve bites, scratches, or contact with saliva. **Rabies can be prevented if the RPE is identified and treated early and aggressively, with post exposure treatment (PET)** using rabies vaccine, with or without human rabies immunoglobulin (HRIG). Because of its cost, some counties in Asia, Africa and South America may use rabies equine/horse

immunoglobulin (ERIG) instead of HRIG, as ERIG is much cheaper than HRIG. The WHO considers HRIG and ERIG to be equally effective. PET is highly effective in preventing disease if given correctly and early. **Previous rabies immunisation (for travel or occupational purposes) provides only partial protection against rabies. Following a RPE even a vaccinated individual will require assessment and PET.**

1.7 About 150-200 potential RPEs require assessment in Ireland each year, following exposure to:

- **Domestic dogs** (and to a lesser extent cats, foxes and other carnivores) encountered overseas (these represent the great majority - >95% - of exposures),
- **Bats**, in Ireland, and very occasionally, in the UK (these represent less than 3-5% of exposures), and
- **Imported animals** from endemic countries (these exposures are rare).

1.8 People travelling to rural areas in endemic countries, especially in areas with large numbers of stray domestic dogs are at highest risk of exposure.[1] In endemic countries, children (boys more than girls) are four times as likely as adults to develop rabies - they are more likely to be exposed and less likely to report it.

1.9 **The UK Health Security Agency maintains an up to date country rabies risk ranking for terrestrial animals.[2]** This is the **definitive reference source of rabies risk information for every country in the world and is used throughout this document**.

1.10 *Infectious period:* this has been reliably described in dogs. Infectiousness usually begins 3-10 days before clinical onset and persists until death. The infectious period in bats is not known.

1.11 *Incubation period*: for rabies virus infection in humans is 5 days to several years (usually 2-3 months, rarely more than 1 year, but up to 8 years in one confirmed case). The length of the incubation period depends on many factors including wound severity, wound location in relation to nerve supply, proximity to the brain, size of inoculum and the degree of protection provided by previous vaccination, use of PPE, clothing and other host factors.

[1] The majority (>80%) of people presenting following an RPE will have been exposed overseas and will have been already commenced on a course of PET.
[2] NB: UKHSA's Country Rabies Risk ranking relates **only** to terrestrial animals. There is no country anywhere in the world that is 'No Risk' for bat exposure (See Section 2.2.4)

2. Sources of Rabies

2.1 Terrestrial Animals

2.1.1 All mammals are susceptible to rabies so should be considered potentially a risk. Domestic dog bites (including domesticated stray dogs) account for 95% of rabies infections in humans worldwide. Human rabies cases have occasionally occurred as a result of bites/scratches from cats, mongooses, jackals, foxes, wolves and other carnivorous animals.

2.1.2 Monkeys and rats rarely transmit rabies to humans although bites or scratches from these animals still require assessment. Rabid monkeys tend to die very quickly.

2.1.3 Herbivores such as cattle can also transmit rabies although this is more likely to be through contact with saliva. Experimentally birds have been shown to become infected but do not develop disease. Reptiles do not carry rabies.

2.1.4 Viral shedding generally occurs in the later or terminal phases of infection, although dogs and cats shed rabies virus in their saliva before symptoms have developed. Infected animals will frequently behave abnormally, but normal behaviour is not necessarily a guarantee of non-infection.

2.1.5 The last case of animal rabies in Ireland was in 1903, and since then Ireland has been considered free of rabies in terrestrial animals, but bats in Ireland present a potential risk of rabies (see below).

2.2 Bats

2.2.1 Tropical and subtropical bats are well recognised reservoirs for rabies. In 1996, European bat 2 lyssavirus (EBLV-2) was first identified in Daubenton's bats (*Myotis daubentonii*) in Great Britain (GB). Since then, authorities in GB identify about two Daubenton's bats infected with EBLV-2 each year. EBVL-2 is, therefore, considered endemic in the GB's Daubenton's population. In 2002, an unvaccinated bat handler died of rabies following unprotected exposure to a Daubenton's bat in Scotland.

2.2.2 In 2018, European bat 1 lyssavirus (EBLV-1) was detected for the first time in serotine bats (*Eptesicus serotinus*) in southern England. A soprano pipistrelle (*Pipistrellus pygmaeus*) tested positive for lyssavirus antigen in 2020 in the UK, but there was insufficient RNA to type the virus.

2.2.3 Daubenton's bats are native to Ireland and given the potential for their movement between Great Britain and Ireland (naturally or aboard marine

vessels), the assumption is that Irish Daubenton's bats (at a minimum) are infected with EBLV-2. As there is not enough information about the likelihood of pipistrelle bats – the commonest bat species in Ireland - being infected with EBLV-2 in the UK or Ireland, this species must be assumed to pose a risk of rabies as well. Serotine bats are not native to Ireland. For the above reasons, **all bats in Ireland – regardless of species - must be assumed to pose a potential risk of rabies**.

2.2.4 Moreover, bats, anywhere in the world, are considered to pose a potential risk of rabies. **As a result, no county in the world is considered 'No Risk' for bat-borne rabies.** Any individual who has a potential RPE involving a bat, whether in Ireland, the UK or anywhere else in the world should be rapidly assessed for the necessity for PET.

2.2.5 It is important to remember that although infected bats are more likely to behave abnormally, *Lyssavirus* infected bats can be apparently healthy. Therefore, the bat's state of health or observed behaviour does not form part of the risk assessment in determining the need for PET.

2.2.6 Bats in Ireland and the UK are protected species and cannot be euthanised to determine their rabies status. If the bat has died, laboratory investigation may help confirm rabies infection. If, following a potential RPE, testing of bats (or any animal suspected of rabies) is undertaken, commencement of PET must begin regardless – **PET must never be delayed pending results of any animal testing.**

2.3 Non-indigenous animal species

2.3.1 If there are concerns about a potential RPE in Ireland or the UK involving a terrestrial mammal or bat, in a zoo or similar centre, or one that has been imported, then categorisation of exposure will involve a risk assessment of the animal involved, including country of origin, where it was bred, its vaccination history and the results of any postmortem examination. Contact Public Health urgently for advice.

2.3.2 For further information, see HPSC Rabies website.

3. Purpose and scope

3.3 The aim of this document is to provide a practical guide to undertaking a clinical and public health risk assessment of potential RPEs and the correct use of PET. It is intended for clinicians in Emergency Medicine, Infectious Diseases, Clinical Microbiology, and Primary Care, as well as Public Health and other health

professionals who may be involved in the assessment and management of RPEs. Please refer to the *Pathway for potential rabies exposure risk assessment and Post Exposure Treatment (PET)*, for patients (adults and children) who present to primary care or the Emergency Department, and local pathways and protocols for accessing vaccine and immunoglobulin as appropriate.

3.4 Requests for clinical and public health advice on a suspected case of human rabies or for pre-exposure vaccine are outside the scope of this document:

1. Suspected case of clinical rabies. This is most likely to be reported from hospital. Immediate advice should be sought from the National Infectious Diseases Isolation Facility and the National Virus Reference Laboratory. Regional and National Health Protection should be informed as a matter of urgency.
2. Pre-exposure prophylaxis is dealt with in NIAC Rabies Guidelines:
    a. Prior to travel – this should be referred to GPs providing this service and Travel Medicine specialists who are providing a travel vaccination service
    b. Where potential for Occupational exposure to *Lyssavirus* – this should be accessed through an individual's employer.

4. Post-exposure assessment

- In Ireland, the majority of significant potential RPEs occur because of exposure to a terrestrial animal (primarily domestic/tame/stray dogs) overseas. Uncommonly exposure is to a bat in Ireland/UK and rarely exposure is to an imported dog other animal. Individual risk assessment of potential RPEs should be undertaken rapidly, so that post-exposure treatment (PET) can be initiated if required. The medical response to potential rabies exposure becomes increasingly urgent the longer the interval between exposure and presentation.

- PET should be started promptly, as soon as possible after a potential RPE has been identified. Treatment can be initiated, and further advice sought from appropriate experts the next day (but ***not*** in the case of bite wounds to the head and neck - see below).

- **Treatment for significant bite wounds to the head and neck should being immediately i.e. as soon after presentation as possible,** where there is a danger of rapid transfer/inoculation of virus into cranial nerves and which will require immediate referral and expert surgical, infectious disease and virological assessment.

4.1 General principles

4.1.1 The following general principles should guide management of potential RPEs:

- **Immediate Identification**: Rapid recognition of a potential RPE exposure is essential to initiate timely PET and prevent death.
- **Immediate Risk Assessment**: ideally on day of presentation and always within 24 hours of presenting (**NB** see caveat regarding head and neck wounds, above). An immediate risk assessment should be carried out regardless of the amount of time which has elapsed since the reported potential RPE. ***The incubation period for rabies in humans can be many years in length.***
- **Immediate wound toilet** (see 4.2).
- The risk assessment must consider the 1) **type of exposure**, **2) animal species** involved, **3) country of exposure**, and **4) wound severity.**
- The most **senior clinician on duty** should perform the risk assessment.
- Any assessment should be based on the detailed history, with subsequent management being proportionate to the risk but where **information is unclear/uncertain then, practitioners should err on the side of caution and adopt a precautionary approach** in deciding management.
- Post-exposure management should **commence as soon as possible after exposure,** ideally immediately on presentation but **always within 24 hours of presenting**.
- If indicated, HRIG should be commenced at the same time as vaccine, and **never more than 7 days after commencing vaccine** or more than 1 day following a second dose of vaccine after due to potential interference with vaccine-mediated immune response. HRIG is not indicated if exposure >12 months previously.
- If a course of PET has already been commenced in another country, refer to *Risk Assessment for Patients who have commenced Rabies PET in Another Country* for guidance on ensuring appropriate course completion.
- **PET Delay and Contraindications**:
    - Rabies vaccine should never be delayed or withheld, regardless of whether or not HRIG is available.
    - If a course of PET has already been commenced and there is concern about possible delay in vaccination, refer to *Risk Assessment for Patients who have commenced Rabies PET in Another Country*.
    - Because of the life-threatening risk of rabies, there are no contraindications to the administration of HRIG.
    - In general, there are no contraindications to post-exposure rabies vaccine (apart from severe reaction to a previous rabies vaccine dose). If this is a possibility, seek urgent expert opinion.

4.1.2 **Post-exposure management** consists of:

- immediate **wound care** (if there is an identifiable wound) and

- **risk assessment for appropriate PET**. PET comprises active immunisation with rabies vaccine, with or without passive immunisation with HRIG.
- HRIG is indicated for individuals who have had a high-risk exposure (see Table 2 - Rating below) and are not previously fully vaccinated.

4.2 Wound care

The first step in managing a potential RPE should be immediate wound care, if appropriate:

- **Wound washing is the most effective immediate first-aid treatment against rabies.**
- It is recommended that for all patients with a potential acute/recent RPE, the wound, or site of exposure (including mucous membranes) should be cleaned immediately and thoroughly with soap or detergent and flushed with running water for 10–15 minutes. A virucidal agent such as povidone-iodine solution or 40–70% alcohol should be applied, and the wound covered with a simple dressing. Mixing of disinfectant and soap should be avoided.
- When irrigating mucous membranes that have been exposed (e.g. eyes, nose, mouth) wash thoroughly with clean water as soon as possible.
- Primary suture may cause further damage to the wound and may increase the risk of inoculation of rabies virus into the nerves. It should be avoided or postponed where possible.
- Tetanus prophylaxis and measures to control bacterial infection should be administered as indicated.
- Occasionally a patient may present with a history of previous rabies-prone exposure/wound which has healed - **this will still need rabies post-exposure assessment**.
- In the case of a Category 3 exposure (see Table 1) in those not fully vaccinated, **HRIG should be infiltrated into the depth of the wound and around the wound, where feasibly possible**.

4.3 Post-exposure risk assessment

4.3.1 The risk assessment to determine necessity for PET is based on information obtained from a detailed clinical history from the patient/parent. Following this the following must be ascertained:

- How long ago the exposure occurred
- The category of exposure, based on a) the animal[3] and b) the severity of the exposure (Table 1).

[3] This may require liaison with veterinary colleagues (private/DAFM veterinary practitioners and animal laboratory staff) is the animal was suspected

- A composite rabies risk (CRR) based on the category of exposure and the country in which the potential RPE occurred (or country or origin of the animal) (Table 2).
- On the basis of the latter estimate, and the patient's previous history of rabies vaccination, one can then decide how best to manage the patient (Table 3).

4.3.2 About 80% of patients requiring rabies PET in Ireland will have already been assessed and commenced on treatment in the country of exposure, and will require completion of their course of PET. For management of these patients, please refer to the guidance document *Risk Assessment for Patients who have commenced Rabies PET in Another Country*.

4.4 Clinical history

4.4.1 The following are the minimum data that should be collected, as completely as possible for each individual with a potential RPE:

- **Patient Core Details**:[4] demographic and clinical details of the patient, taking into consideration the patient's ability to provide/recount reliable history.
- **Date of exposure**: how long ago was the potential RPE?
- **Country of Exposure**: using the **risk categorisation for terrestrial animals** (Ireland and the UK are **no risk** for **indigenous** terrestrial animal exposures but **low risk for all bat exposures)**
- **Animal of exposure:**
  - *Species*: a key distinction in in identifying whether exposure was to a terrestrial animal or a bat - terrestrial animal exposures and bat exposures are managed differently.
  - *Behaviour*: for terrestrial mammals, unprovoked bites carry a higher risk of rabies compared with bites resulting from provocation.
  - *State of health*: any information on the health of an animal, including results of laboratory tests and vaccination status are useful. In the case of dogs and cats, where it is possible to observe the suspect animal, and a period of 15 days elapses without the development of abnormal behaviour, then any PET that has been started may be stopped. Bites from previously vaccinated animals still need to be risk assessed unless there is documented evidence of both current vaccination status and immunity in the animal concerned. **Commencement of PET should never be delayed pending the results of animal studies.**
  - *Number of people potentially exposed*: it may be necessary to determine this if the possibility exists that a number of people were exposed to/attacked by the suspected animal.
- **Nature of exposure including:**
  - The presence, or otherwise of a breach in the patient's skin
  - Whether any breach was caused by a bite or a scratch
  - If there was a single wound, or multiple lacerations

[4] This must be collected for all exposed individuals if a cluster of individuals has been exposed

- If, in the absence of a visible wound, the saliva from the animal could have come in contact with the patient's mucous membranes

Important:

- Bites and scratches on the head, neck, face, hands and genitals are high risk exposures because of the rich innervation of these areas.
- Head and neck bites and scratches, as well as those in other areas where rabies virus is inoculated directly into nerve tissue (most especially cranial nerves), may have a short, or very short incubation period (as short as 4-5 days).

- **Patient's immune/vaccination status:**
  - Has the patient received a full course of rabies vaccine? Do they have a well-documented appropriate course of PrEP or PET or a recent documented rabies antibody titre of at least 0.5 IU/ml?[5] **If in doubt, patients should be managed as if they were not fully vaccinated.**
  - If the patient is not fully vaccinated, it is important to establish whether:
    - they have never received PrEP, or
    - they have received incomplete/inadequate PrEP which may include having been started on PET in another country as a result of the potential RPE
  - Is the patient immunosuppressed? If yes, advice should be sought from the patient's clinician as to their ability to mount an effective immune response, as they might require specialist clinical care. (See Section 5.1 below and NIAC Immunisation Guidelines Chapter 3).

4.5 Category of exposure

4.5.1 Category of exposure is determined separately depending on whether the exposure was to 1) a terrestrial animal overseas (or to an imported terrestrial animal in Ireland/UK) or 2) a bat, given differences in the way risk is assessed for terrestrial animals and bats.

[5] NVRL will arrange referral of human blood/serum to the APHA laboratories in Weybridge, Surry UK

Table 1 Category of Exposure

Category	Terrestrial mammals	Bats
1	**No physical contact with saliva** For example: • touching, stroking, or feeding animals • Animal licks on intact skin • Exposure to animal blood, urine or faeces	**No direct physical contact with bat's saliva (when there is a reliable exposure history)** For example: • touching a dead bat • touching a bat where the person was protected by a barrier capable of preventing saliva contact, such as a boot, shoe, or appropriate protective clothing • a bat in the same room as a person (including a sleeping person) in the UK or Ireland – but see proviso below
2	**Minimal contact with saliva, with no evidence of transdermal inoculation or mucosal exposure** For example, suspected salivary contamination via: • Bruising or abrasions/ scratches without bleeding • Nibbling uncovered skin • licks to broken skin (e.g. over insect bites or scratches) • bites which do not break the skin	**Uncertain or potentially unrecognised physical contact (i.e. no observed direct physical contact as above but where it may have occurred).** For example: • handling a live bat without appropriate protective clothing (e.g. gloves) • a bat becoming tangled in hair • potential contact with a bat in Ireland or the UK in someone who is unable to give an accurate history of an exposure (i.e. intoxicated individual, young child, individual with mental impairment) • any bat found in the room of a sleeping person outside the UK or Ireland
3	**Direct contact with mammal's saliva** For example: • severe cuts / lacerations • bites that break the skin • contamination of mucous membranes with saliva (for example, licks)	**Direct physical contact with bat's saliva** For example: • all bites or scratches • contamination of mucous membrane with saliva

4.6 Composite Rabies Risk (CRR)

4.6.1 The CRR is estimated using the exposure category estimated above (Table 1) along with a combined country/animal risk (Table 2); estimated by using information on the country in which the potential RPE occurred and the mammal species using UKHSA Rabies risks in terrestrial animals by country table.[6]

4.6.2 These two estimates are used to define the CRR as green, amber or red and therefore what level of PET is indicated.

Table 2: Estimation of CRR

Combined Country/ Animal risk	Category 1 exposure	Category 2 exposure	Category 3 exposure
No risk[§]	Green	Green	Green
Low risk	Green	Amber	Amber
High risk	Green	Amber	Red
Confirmed rabis in an	Green or amber**	Red	Red

[§] **NB**: No risk refers to countries that have no risk for terrestrial rabies – all countries are at least **low risk** for bat rabies

* Urgent advice should be sought from the Public Health who will work with DAFM in the assessment and managing the incidents.

** Amber if any uncertainty about extent of exposure

4.6.3 The CRR ranks exposures into one of three risk levels, green, amber or red. PET is administered on the basis of the risk ranking, taking into consideration the assessed level of immunity/immunosuppression of the patient.

[6] **NB:** The UK and Ireland are currently classified as 'No risk' for terrestrial animal rabies, but 'Low risk' for bat rabies. There is no country in the world that is considered 'No risk' for bat rabies.

Table 3: PET Recommendations based on CRR

CRR (based on Table 2)	Non-immunised	Partially immunised[a, b]	Fully immunised	Immunosuppressed[7]
GREEN	None	None	None	None
AMBER	4 doses of vaccine on days 0, 3, 7, 14-28	4 doses of vaccine on days 0, 3, 7, 14-28	2 doses of vaccine days 0 and 3	HRIG[c] and 5 doses of vaccine on days 0, 3, 7, 14 and 28[d]
RED	HRIG[c] and 4 doses of vaccine on days 0, 3, 7 and 14-28	4 doses of vaccine on days 0, 3, 7 and 14-28	2 doses of vaccine days 0 and 3	HRIG[c] and 5 doses of vaccine on days 0, 3, 7, 14 and 28[d]

Notes:

a. Where a person has incomplete pre- or post-exposure course of rabies vaccine then seek specialist advice.
b. HRIG is not generally advised for those who are partially immunised.
c. HRIG is not required more than seven days after the first dose of vaccine, or more than one day after the second dose of vaccine of a post-exposure course. HRIG is not indicated if the exposure is over 12 months previous, although vaccine may be indicated.
d. Carry out rabies antibody testing taking blood sample on same day as last vaccine dose to ensure adequate response.

5. Post-exposure treatment

Full details of dosing of PET are available in NIAC Rabies Guidelines. For rabies vaccine, each IM dose is ≥2.5IU (the entire contents of a vial of vaccine). For HRIG, the total dose is 20 IU/kg. The shelf life of rabies vaccine is at least 3 years, provided it is stored between +2°C and +8°C and is protected from sunlight. Full details on ordering and use of rabies vaccine and HRIG are available here.

5.1 Rabies Vaccination

Rabies vaccination is a safe and effective intervention, and its use should be considered in all potential RPEs.

- **Contraindications**: There are no contraindications for rabies vaccine or HRIG when giving PET. For anyone with evidence of hypersensitivity to either rabies vaccine or a component of rabies vaccine, then PET should be carried out under close medical supervision. [8] For full details please refer to NIAC Rabies Guidance.

[7] For categorisation of immunosuppressed patients, please refer to Chapter 3 (Immunisation of Immunocompromised Persons) in Immunisation Guidelines for Ireland.
[8] As rabies infection is generally fatal, there are no contraindications to post-exposure vaccination. Consider using an alternative Rabies vaccine. Facilities should be in place to monitor the vaccinated person and recognise and treat severe allergic

- **Precautions**: PET should **never be withheld** from pregnant or lactating women; any of the WHO-recommended regimens can be used in pregnancy.
- Assessment should always include whether the patient is potentially immunosuppressed. Modern rabies vaccines are inactivated, so the only issue relates to ability to mount an immune response – rabies vaccine (and HRIG) can be safely administered immediately to any patient who is suspected of being immunosuppressed. Guidance on immunising immunosuppressed patients is available in Chapter 3 NIAC Guidelines.
- As a guide, the following are categories of conditions in which the risk of a suboptimal immune response to rabies is likely:
    i. Primary Immunodeficiencies
    ii. Cancer/haematological malignancies being treated or recently treated with intensive chemotherapy/radiotherapy
    iii. Solid organ transplant recipients
    iv. Higher does immunosuppressive therapy
    v. High dose corticosteroid therapy as defined in Chapter 3 NIAC Guidelines
    vi. Other Immunomodulatory therapy, including biologics.
    vii. Untreated HIV infection[9]
    viii. Undergoing dialysis.
- While the above, in conjunction with Chapter 3 NIAC Guidelines can offer direction, the opinion the patient's treating clinician as to their patient's ability to mount an effective immune response must be sought.
- **This opinion should not delay immediate administration of vaccine and/or HRIG where indicated**.
- **For non-immunised staff carrying out animal control activities where there is an outbreak**: Where the rapid PrEP schedule (day 0,3,7 as outlined in NIAC Rabies Guidance) has been implemented, this can be converted into PET if staff report a potential RPE.
    i. If a potential RPE occurs before day 21 then this schedule can be converted into the four-dose PET schedule.
    ii. If potential RPE occurs after day 21 then 2 doses are required as per the PET schedule (day 0, day 3-7).
    iii. If staff have received the three-dose rapid schedule and booster at 1 year prior to potential RPE, then they should be considered fully immunised and should receive the two-dose schedule per NIAC Guidelines.

5.2 Human Rabies immunoglobulin (HRIG)

5.2.1 HRIG may provide short-term immunity and, where indicated, should be given as soon as possible after it has been recommended by the risk assessment. Where there have been severe/multiple bites to the face, head, neck, hands or genitals, or

reactions. Seek expert advice if there are any indications of potential adverse reaction.

[9] Patients living with HIV with a CD4+ count <200 (Adults) or CD4+percentage <15% (Children).

where the bite is from an animal with confirmed rabies, then **treatment should begin immediately and within 12 hours of presentation**.

5.2.2 HRIG should not be given more than seven days after the first dose of rabies vaccine or, as a general principle, to anyone fully immunised as the antibody level induced by active immunisation (vaccine) is orders of magnitude greater than that induced by passive immunisation (HRIG). See Table 3 for when HRIG is recommended, including immunocompromised individuals.

5.2.3 HRIG can be directly acutely administered directly into wounds where there is a high likelihood that direct inoculation into neural or perineural tissue may have occurred.

ANNEX: Summary of Risk Assessment of Rabies-prone Exposure and Post Exposure Treatment

This summary of assessing rabies prone exposures (RPEs) should always be used in conjunction with Guidelines on Post-exposure Assessment and Treatment of Rabies- prone Exposures (October 2025).

1. Determine the combined country/animal risk – irrespective of country, a significant bat exposure is always LOW (not NO) risk for rabies.

2. Determine the category of exposure

Category	Terrestrial mammals	Bats
1	No physical contact with saliva	No physical contact with the bat's saliva
2	Minimal contact with saliva, with no evidence of transdermal inoculation or mucosal exposure	Uncertain or potentially unrecognised physical contact (i.e. no observed direct physical contact with saliva but where it *could have occurred*)
3	Direct contact with mammal's saliva	Direct contact with bat's saliva

3. Determine the Composite Rabies Risk

Combined Country/ Animal risk	Category 1 exposure	Category 2 exposure	Category 3 exposure
No risk[§] (terrestrial mammals)	Green	Green	Green
Low risk	Green	Amber	Amber
High risk	Green	Amber	Red
Confirmed rabies in an animal	Green or amber	Red	Red

[§]**No risk** refers to countries that have **no risk for terrestrial rabies** – **all countries are at least low risk for bat rabies**

4. Determine the post-exposure treatment required

Composite Rabies Risk	Non-immunised	Partially immunised	Fully immunised	Immunosuppressed[10]
Green	None	None	None	None
Amber	4 doses of vaccine on days 0, 3, 7, 14-28	4 doses of vaccine on days 0, 3, 7, 14-28	2 doses of vaccine days 0 and 3	HRIG and 5 doses of vaccine on days 0, 3, 7, 14 and 28d
Red	HRIG and 4 doses of vaccine on days 0, 3, 7 and 14-28	4 doses of vaccine on days 0, 3, 7 and 14-28	2 doses of vaccine days 0 and 3	HRIG and 5 doses of vaccine on days 0, 3, 7, 14 and 28d

HRIG is not required if >7 days after 1st vaccine dose, or >1 day after 2nd vaccine dose (interferes with natural immune response). HRIG is not indicated if exposure >12 months previously. With a reliable history of an RPE exposure (irrespective of how long ago), always vaccinate – **there is no safe "cut-off" interval following a plausible RPE when vaccine can be considered not necessary**.

[10] For information on immunosuppressed patients and PET administration, refer to Guidelines on Post-exposure Assessment and Treatment of Rabies-prone Exposures (October 2025) in conjunction with Chapter 3 (Immunisation of Immunocompromised Persons) in Immunisation Guidelines for Ireland.