Australian Immunisation Handbook

Responses to Public Consultation Submissions

Rabies and other Lyssaviruses, including Australian Bat Lyssavirus, Vaccine Recommendations

Public consultation period: 19 October 2020 to 18 November 2020

Contents

1. Introduction

Public consultation for the revised Rabies and other Lyssaviruses, including Australian Bat Lyssavirus, vaccine recommendations in the *Australian Immunisation Handbook* (the Handbook) was conducted over a four week period from 19 October 2020 to 18 November 2020, during which time the draft recommendations were available on the Citizen Space website. The Immunisation Branch invited a range of stakeholders, committees, working groups and interested people to provide submissions. A list of organisations formally invited to comment on the draft guidelines is provided in **Appendix A**.

This report outlines the public consultation comments received for the revised Rabies and other Lyssaviruses, including Australian Bat Lyssavirus, vaccine recommendations. Fourteen submissions were received using the submission template provided on Citizen Space. Of these, eleven were on behalf of an organisation and three were as individuals (Table 1).

Table 1. List of respondents who made comment on the revised Rabies and other Lyssaviruses, including Australian Bat Lyssavirus, vaccine recommendations

Responder No.	Organisation
1	Individual
2	Immunisation Section, Communicable Disease Control Branch, SA Health
3	Travel Medicine Alliance
4	Individual
5	Australian College of Nurse Practitioners
6	Northern Territory Department of Health
7	South Eastern Sydney Public Health Unit
8	Travel Doctor Chatswood
9	Australasian College of Tropical Medicine
10	Public Health Services, Tasmanian Department of Health
11	Sanofi Pasteur ANZ
12	Individual
13	Queensland Health
14	Australasian College of Tropical Medicine

The Australian Technical Advisory Group on Immunisation (ATAGI) considered all responses from the public consultation in December 2020 and, where necessary, revised the recommendations in accordance with the submissions. Comments from the public consultation submissions and the ATAGI responses are summarised in the following section.

This report was submitted to the National Health and Medical Research Council (NHMRC) in May 2021, and was approved at its 17 June 2021 meeting.

2. Responses to public consultation submissions

2.1 Revised Rabies and other Lyssaviruses, including Australian Bat Lyssavirus, vaccine recommendations

No.	Organisation	Comment	Proposed action	Rationale
1	Individual	Financial benefit to the patient.	**Reviewed. No change in recommendation made.**	Comment noted with thanks.
2	Immunisation Section, Communicable Disease Control Branch, SA Health	Simply stating ID (intradermal) pre-exposure course of rabies vaccine is required to be performed by a clinician adept in ID technique is not sufficient. Need to highlight this recommendation differently to stress compliance with guideline.	**Reviewed. Change made to recommendation.**	Additional information has been included highlighting those experienced with ID vaccination and considerations when using the ID route.
3a	Travel Medicine Alliance	1. Re bat carers having routine boosters at 3 years I believe this is better than recommending boosters at 2 years, but the guidelines could perhaps more strongly recommend that serology testing prior to booster may be preferable, if available, as some bat carers get many exposures and hence post-exposure doses, and may get many doses of rabies vaccine over their lifetime; we don't want them to become hypersensitised to the rabies vaccine. The serum sickness reaction that has been reported with HDCV (human diploid cell vaccine) is at the back of my mind. Although it is recommended not to use HDCV for bat carers when possible, the issue of serum sickness from HDCV vaccine may be something that	**Reviewed. No change in recommendation made.**	Our guidance for occupational exposure to bats advises to check VNAb (virus neutralising antibody) titre after 3 years and then vaccinate if the titre is <0.5 IU/mL. Vaccinating without checking VNAb titre is only presented as an alternative.

No.	Organisation	Comment	Proposed action	Rationale
		some vaccination providers are not aware of, and routine boosters may increase risk of this over a lifetime. Reference: Warrington RJ, Martens CJ, Rubin M, Rutherford WJ, Aoki FY. Immunological studies in subjects with a serum sickness-like illness after immunization with human diploid cell rabies vaccine. Journal of Allergy and Clinical Immunology 1987;79(4):605–10.		
3b	Travel Medicine Alliance	2. Older persons and rapid courses I think a comment should be made about the ID rapid PrEP (pre-exposure prophylaxis) courses being best avoided in persons over the age of 50. The IM (intramuscular) rapid course of day 0 and day 7 would be preferable in persons over 50, which could be done in the same time frame. This study suggested that older persons did not respond as well to rapid courses. Persons over 50 years of age are more likely to be negative at the 1-month blood test: Mills DJ, Lau CL, Fearnley EJ, Weinstein P. The immunogenicity of a modified intradermal pre-exposure rabies vaccination schedule: a case series of 420 travelers. Journal of Travel Medicine 2011;18(5):327–32. Also good evidence from below study that, for ID PrEP in older persons, 0/7/21–28 is better than shortened course:	**Reviewed. Change made to recommendation.**	Comment noted with thanks. Additional guidance will be provided to avoid the accelerated ID schedule in people aged >50 years.

No.	Organisation	Comment	Proposed action	Rationale
		Furuya-Kanamori L, Ramsey L, Manson M, Gilbert B, Lau CL. Intradermal rabies pre-exposure vaccination schedules in older travellers: comparison of immunogenicity post-primary course and post-booster. Journal of Travel Medicine 2020;27(7);taaa006. https://academic.oup.com/jtm/advance-article/doi/10.1093/jtm/taaa006/5704962		
3c	Travel Medicine Alliance	3. Accelerated courses in document There are 2 options for administering an accelerated schedule: • accelerated 3-dose IM schedule – 1st dose on day 0 – 2nd dose on day 3* – 3rd dose on day 7 • accelerated 4-dose ID schedule comprising 2 vaccine doses at each visit – 2 × 0.1 mL injections given at different sites on day 0 – 2 × 0.1 mL injections given at different sites on day 7 * The dose on day 3 seems superfluous. From the WHO (World Health Organization) position paper, WHO recommends the following PrEP schedule: 2-site ID vaccine administered on days 0 and 7. If IM administration is used, WHO recommends a 1-site IM vaccine administration on days 0 and 7.	**Reviewed. No change in recommendation made.**	Our review of the available evidence demonstrated a lack of immunogenicity data for the WHO-recommended 2-visit IM schedule, with the recommendation made based on indirect evidence from an ID schedule. There was supporting evidence for the JCVI (Joint Committee on Vaccination and Immunisation)–recommended 3-visit IM schedule we have recommended.

No.	Organisation	Comment	Proposed action	Rationale
		Reference: WHO. Rabies vaccines: WHO position paper — April 2018. Geneva: WHO; 2018. https://www.who.int/publications/i/item/who-wer9316		
3d	Travel Medicine Alliance	4. Travellers' risk of rabies Document says: 'Travellers to rabies-enzootic regions are recommended to have a risk assessment to guide vaccination decision-making, and all travellers should avoid exposure to rabies virus and other lyssaviruses'. Although 'all travellers should avoid exposure to rabies virus', this is sometimes not possible and not under the control of the traveller. The difficulties of making this risk assessment could perhaps be highlighted. It seems a widely held myth that travellers or doctors can predict who will have an animal exposure. This myth may lead to travellers declining PrEP as they plan to 'not pat animals'. In the study below, 40% of travellers who were bitten did not initiate any contact with the animals (and some of the initiated contact, such as taking a photo of an animal, would not necessarily be perceived as a risk by most travellers). Accessing RIG (rabies immunoglobulin) overseas is difficult (only 14% in our study), so it would perhaps be useful to lower the threshold for vaccination of travellers by acknowledging that some animal contact is not under the direct control of the traveller.	**Reviewed. Change made to recommendation.**	Comment noted with thanks. The wording of the risk assessment section of the Handbook will be expanded to indicate exposure through uninitiated contact.

No.	Organisation	Comment	Proposed action	Rationale
		Reference: Mills DJ, Lau CL, Weinstein P. Animal bites and rabies exposure in Australian travellers. Medical Journal of Australia 2011;195(11):673–5.		
3e	Travel Medicine Alliance	5. The comment 'The intradermal technique is not commonly used in Australia' I don't think this is strictly correct. ID rabies vaccine for pre-immunisation is very commonly used in travel medicine clinics. My Sanofi rep guessed that medicine clinics give 80% of the rabies PrEP vaccine given in Australia, which I know is a guess, but it would perhaps be better to say 'The intradermal technique is not commonly used in general practice in Australia'.	**Reviewed. Change made to recommendation.**	Comment noted with thanks. The text will be updated as suggested.
3f	Travel Medicine Alliance	6. Only give boosters IM Could there please be an option to give boosters ID for travellers, especially if they have had ID pre-immunisation, provided the serology levels are checked afterwards? This would save them money, and there would be no increased risk as the levels would be assured.	**Reviewed. No change in recommendation made.**	Given the potential for ID vaccination to be administered incorrectly, and the importance of booster doses for maintaining immunity in people who have a high risk of exposure, ATAGI considers IM the appropriate route for booster doses.
4a	Individual	ABLV (Australian bat lyssavirus): For bat rescuers and rehabilitation carers, the 12-month rabies booster is essential. As a medical practitioner as well as a bat rescuer and rehabilitator, I have followed and documented bat handlers' rabies VNAb titres after primary vaccination Some bat handlers' VNAb titres had fallen below	**Reviewed. No change in recommendation made.**	The recommendation for a 12-month booster dose post-primary vaccination, followed by 3-yearly

No.	Organisation	Comment	Proposed action	Rationale
		0.5 eu/mL by 12 months post-primary vaccination. Some even have falling levels after booster vaccination. The time frame of 3-year booster or 3-year rabies VNAb titre has an increased risk. Titre levels around 0.5 eu/mL would have been falling and, if this low level was 3 years ago, the probability that it is now below 0.5 at an ABLV risk exposure is high. I have extensive experience as a GP, aware of vaccination failures, medical risk and compliance. Being involved in bat rescue rehabilitation also has alerted me to the need for at least 12-monthly rabies VNAb titres to this high-risk group, which includes myself and my wife Beverley Brown OAM (for grey-headed flying fox rescue and rehabilitation). ABLV is rare but fatal. Herd immunity does not apply. Vaccination is not 100% effective. Immune competence varies. Regular VNAb titres are needed to help overcome these deficiencies.		boosters, is based on an extensive review of the available evidence.
4b	Individual	ABLV high-risk groups should include bat rescuers. Bat rescuers are frequently exposed to bites and scratches (risk category II and III) as PPE (personal protective equipment) cannot be safely used when rescuing a bat entangled in fruit tree netting or barbed wire. Rescued and sick bats have a higher incidence of ABLV. Laboratory workers with ABLV exposure are classed as high risk but have a dead bat and use PPE. Laboratory workers with exposure or potential exposure to ABLV are working with PPE on a dead bat who cannot bite or scratch. Bat rescuers cannot safely rescue (eg from fruit tree netting entanglement and barbed wire) using PPE, and are frequently bitten and scratched. Who is at higher risk — both.	**Reviewed. No change in recommendation made.**	Laboratory workers are considered at greater risk than bat handlers, as they handle the live rabies virus. This is why the booster recommendations differ for each group.

No.	Organisation	Comment	Proposed action	Rationale
4c	Individual	2. Immune compromised and immune incompetent (a) Immune compromised. Is the person and the vaccinator always aware? Recommendations for this group are for extra vaccinations and VNAb antibody titres after pre- and post-exposure vaccination. (b) Immune incompetent. Do you know who is? A person's knowledge of a previous vaccine failure is not common unless - antibody titres are required (eg hepatitis B for some health workers and organisations, antibody testing in pregnancy), or - they acquire the disease after vaccination (eg varicella). Case 1. Following primary vaccination, one of our bat handlers who was not immune compromised and not known to be immune incompetent did not reach the required rabies VNAb titre of >0.5 eu/mL. A 4th dose was required. Hence the importance of post-primary vaccination titre levels to be done. Also, this person's rabies VNAb titre fell significantly shortly after the 4th vaccination. This case demonstrates the need for more frequent antibody testing and booster vaccination in bat handlers. Cases 2 and 3. Within 12 months of primary vaccination, titre levels had fallen below 0.5 eu/mL. Hence the importance of a booster at 12 months as recommended by rabies vaccine manufacturers. Titre	**Reviewed. No change in recommendation made.**	Most individuals with mild immunocompromise respond adequately to primary vaccination, and the new recommendation is for bat handlers to have a booster 12 months after this. Our evidence review suggested that vaccine failures are extremely rare. The documented cases of vaccine failure have involved a deviation in recommended rabies vaccination protocol.

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		levels could also be checked at 12 months and again after the 12-month booster dose, which will determine an individual's immune competence or failure of the vaccination. The immune competence of an individual can only be known by their rabies VNAb titre response — which highlights the need for all bat handlers to have rabies VNAb titres at least after primary vaccination and after booster vaccination. If a bat handler is subject to high-risk exposure, rabies VNAb titres should be done 6–12-monthly.		
4d	Individual	3. Vaccine failures Vaccination is known not to be 100% effective, and this also applies to rabies primary vaccination and post-exposure vaccination. This failure can also occur in those persons who are not in the category of (a) immune compromised or (b) immune incompetent.	**Reviewed. No change in recommendation made.**	Our evidence review suggested that vaccine failures are extremely rare. The documented cases of vaccine failure have involved a deviation in recommended rabies vaccination protocol.
4e	Individual	4. Rabies VNAb titre testing False positives and false negatives do occur in antibody testing. Bat handlers who have not had recent primary vaccination or booster vacinations have shown a variation in rabies VNAb titre levels from year to year and also between the two testing laboritories of 15–20%. Therefore, is a VNAb of 0.5 eu/mL done some time prior to a potential ABLV exposure still considered to be protective? The period of 2- or 3-year VNAb titre levels or booster vaccination delivers an increased risk for bat handlers who are frequently exposed to category II and III risk. Rabies VNAb titres are	**Reviewed. No change in recommendation made.**	Our evidence review identified numerous studies demonstrating a robust anamnestic response, even in individuals where the titre had fallen below 0.5 IU/mL after primary vaccination.

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		usually maintained at levels in bat handlers to >2 eu/mL. Titre levels falling to the lower level of 0.5 eu/mL may indicate failing immunity. Can lymphocyte B cell memory be relied upon, at VNAb levels below 0.5 eu/mL, to produce an antibody reponse in a previously immunised person?		
4f	Individual	5. Post-exposure follow-up 'contact tracing' by state health departments What is the policy and procedure for ABLV contact tracing in each state or territory? Who is responsible to follow up a potential or confirmed ABLV exposure to a bat handler or a public member who has had a category II or III exposure? For example: (a) The completing of post-exposure vaccination and ? antibody titre levels. Health professionals are not always aware of the need for, or of the potential failures of, pre- and post-exposure management of ABLV. Case 4. Category III exposure to a member of the public who presented to Accident and Emergency at one of our public hospitals and was told she did not need PEP (post-exposure prophylaxis). Case 5. In Queensland, an ABLV death occurred 2 years after exposure.	**Reviewed. No change in recommendation made.**	This is outside the scope of the Australian Immunisation Handbook. Details of case management are described in the Rabies Series of National Guidelines.

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		(b) If a person who is exposed to a category II or III risk level and does not attend for PEP or is not informed of the need for PEP. At present, the only person who can follow up the medical attendance for PEP of the person exposed is the bat rescuer or the organisation who received the rescue call. Case 6. A recent case (April 2020) of a member of the public who was a second person who arrived later at the rescue site and who received a category III injury was not known to the rescue organisation. (c) No or inadequate records are documented. Cases 7 and 8 (January 2019). Vet clinic(s) did not record the details of person(s) who delivered, and/or were exposed to, the bat that was brought to the vet clinic. 6. PEP. The potential for failure exists. Refer to WHO document Q.17 under 'Rabies': 'Is there any possibility of vaccine failure after PEP?' … 'investigations of deaths due to rabies in patients who received PEP revealed that delay in seeking treatment, improper wound care, lack of compliance to vaccinations, among other factors (eg quality of vaccine and cold chain) were the main reasons for treatment failure and death'. An improved follow-up process is required with backup protocols to cover potential human error to save humans and bats.		

No.	Organisation	Comment	Proposed action	Rationale
4g	Individual	Should bats involved in category II or III exposure that are available for testing be tested, as previously recommended by Communicable Diseases Network Australia/Australian Immunisation Handbook? Some bat species are listed as threatened, vunerable, endangered or critcally endangered, and are keystone species for our ecosystems. If healthy, they should not be euthanased for ABLV testing. Few bat carers want to see a healthy bat euthanased for testing. The determination that a rescued bat does not have ABLV will depend on the level of experience of the bat handler and their awareness of ABLV presentation. If a bat involved in a category II or III exposure is not tested for ABLV, how long should the bat be kept in quarantine and monitored for ABLV? Who oversees this holding and monitoring process? Should an experienced, ethical bat carer be licensed to receive, monitor and report the outcome of a bat involved in category II or III exposure? If a bat involved in exposure category II or III is tested and is positive, would follow-up systems be closer to failproof? Would the exposed person be relieved of a possible prolonged period of anxiety?	**Reviewed. No change in recommendation made.**	This is outside the scope of the Australian Immunisation Handbook. Details of bat testing are described in the Rabies Series of National Guidelines.
4h	Individual	Some bat handlers with high exposure to, and high incidence of, category II and III risk would require frequent PEP — as often as weekly to several times a year. WHO recommends, for frequent rabies potential exposure, that another PEP would not be required	**Reviewed. No change in recommendation made.**	As described in the public consultation document, people with a repeat exposure within 3 months of completing previous

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		for 3 months. This could mean 4 PEPs a year for some high-risk bat handlers.		PEP do not need any further vaccine doses.
4i	Individual	Veterinary surgeons are required to assess and treat wildlife. A limited number of vets and staff have had rabies vaccination, and of most of these have not had boosters or VNAb titre levels.	**Reviewed. No change in recommendation made.**	Veterinarians are among those recommended to receive PrEP and would be included in the category of anyone with ongoing exposure to bats recommended to receive booster doses.
4j	Individual	There has been a worldwide shortage of HRIG (human rabies immunoglobulin), which is imported. To overcome a shortage if the bat involved in a category II or III exposure is tested and if the result is available within 1–2 days and is negative, PEP would not be required. HRIG would then only be given if the bat is positive to ABLV.	**Reviewed. No change in recommendation made.**	The Australian Immunisation Handbook does advocate for animal testing to avoid the unnecessary use of PEP. Guidance is provided on circumstances when a delay in PEP administration should not occur.
5a	Australian College of Nurse Practitioners	The proposed changes are positive. The use of ID rabies vaccination by an appropriately trained person is the most beneficial for the patient in terms of cost and time. Cost-effectiveness does impact on the number of travellers who may take up the vaccine. It would be beneficial for practitioners administering rabies vaccines, either IM and especially ID, to be able to undertake a revision course similar to the yellow fever and Q fever courses hosted by the Australian College of Rural and Remote Medicine. Practitioners in travel medicine clinics regularly administer pre-and post-exposure	**Reviewed. Change made to recommendation.**	Information on the benefits of training for ID vaccination has been added to the 'Potential risks' section of the document.

No.	Organisation	Comment	Proposed action	Rationale
		rabies vaccines, but the concern is that there is a potential error for practitioners who do not routinely administer these vaccinations.		
5b	Australian College of Nurse Practitioners	More information is needed relating to serological testing for people who received PrEP by the ID route, especially in the case of travellers who are leaving within 2 weeks, on accelerated PrEP. Is serological testing still required or recommended (note the current requirement for serological testing at 2–4 weeks)?	**Reviewed. No change in recommendation made.**	Serological testing after ID vaccination is recommend for everyone, and the timing should be taken into account when vaccinating people planning travel.
6a	Northern Territory Department of Health	There is the potential for inappropriate administration of vaccine via the ID route — this would be due to the rarely used administration method. There would need to be greater inclusion and access to training for ID administration.	**Reviewed. Change made to recommendation.**	Additional information has been included highlighting those experienced with ID vaccination and considerations when using the ID route. Information on the benefits of training for ID vaccination has been added to the 'Potential risks' section of the document.
6b	Northern Territory Department of Health	There is the potential for increased use of the rabies vaccine due to the recommendation for booster doses in lieu of serology testing for at-risk groups. This may increase the demand for a vaccine that is often in short supply.	**Reviewed. No change in recommendation made.**	Our guidance for occupational exposure to bats advises to check VNAb titre after 3 years and then vaccinate if the titre is <0.5 IU/mL. Vaccinating without checking VNAb titre is only presented as an alternative.

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				This option (to vaccinate without testing titre) is not a change from the current Handbook advice. The change proposed is to extend the period between booster doses from 2 years to 3 years, which will likely decrease the number of doses an individual receives.
6c	Northern Territory Department of Health	The safety of vial sharing in high-vaccination settings.	**Reviewed. Change made to recommendation.**	Information has been included on the importance of following procedures for the use of multidose vials.
7a	South Eastern Sydney Public Health Unit	We agree that the amendments are of benefit, in clarifying requirements and rationalising RIG usage. In a few places (eg PrEP table on page 10, immunocompromised PEP on page 21), providers are referred to the state or territory health authority if titres are <0.5 IU/mL. I don't believe state and territory health authorities have a level of expertise to manage these situations. Rather than referring providers to us, it would be helpful to include expert advice on how to manage these situations in the Handbook, or at least a reference to authoritative advice.	**Reviewed. No change in recommendation made.**	Situations where a person does not respond to vaccination and their titre remains low need to be managed on a case-by-case basis. Therefore, further guidance cannot be included in the Australian Immunisation Handbook. Public health physicians in state and territory health departments are best placed to determine management of such people. Minor wording will be edited in the Handbook.

No.	Organisation	Comment	Proposed action	Rationale
7b	South Eastern Sydney Public Health Unit	There are a few places where a distinction is made between prior pre- or post- exposure courses that I'm not sure are intended: page 20 — vaccinated people table. The text only refers to previous completed PrEP. Wouldn't a prior completed PEP also be relevant? page 23 — repeat exposure within 3 months of PEP. Evidence cited on page 24 indicates that PrEP within 3 months also means an exposure within 3 months doesn't require more PEP.	**Reviewed. Change made to recommendation.**	Comment noted with thanks. This was unintentional, and the text will be corrected.
7c	South Eastern Sydney Public Health Unit	Figure on page 30: title indicates the algorithm is for terrestrial animals; however, the top box in category III mentions bats.	**Reviewed. Change made to recommendation.**	Comment noted with thanks. This error will be corrected.
8	Travel Doctor Chatswood	12-month boosters for accelerated schedules should not be necessary — see Q7. Use of a 2-dose IM abbreviated schedule should be noted — see Q8. According to the WHO position paper on rabies vaccination, either 2 × 0.1 mL ID on days 0 and 7 or 1 × 1 mL IM on days 0 and 7 are acceptable accelerated dosage schedules. Also, the paper states 'Vaccine induced memory B cells appear to persist for life, and effective recall of the immune response to additional doses, such as for PEP, are documented for decades after priming'. Under these circumstances, the WHO recommendation is that PrEP schedules of either 2 ID doses at each of days 0 and 7 or 1 IM dose at each of days 0 and 7 should confer long-lasting immunity. Regardless of the waning of antibodies, once primed by PEP doses, immunity is	**Reviewed. No change in recommendation made.**	Our review of the available evidence demonstrated a lack of immunogenicity data for the WHO-recommended 2-visit IM schedule, with the recommendation made based on indirect evidence from an ID schedule. There was supporting evidence for the JCVI-recommended 3-visit IM schedule we have recommended. The booster dose 12 months after an accelerated PrEP schedule is only recommended for those with ongoing exposure, based on

No.	Organisation	Comment	Proposed action	Rationale
		recalled. This means a booster at 12 months is not required — the WHO paper specifically states that a 12-month booster is only needed if a single-dose IM schedule is used. As the WHO position paper states that a 2-dose IM schedule on days 0 and 7 is acceptable (extrapolated from the 2-dose ID and single-visit IM studies), and considering that the cost for the traveller would be similar to the 4-dose ID schedule on days 0 and 7, with less likelihood of poor administration technique, surely the 2-dose IM schedule has an advantage, especially if there is insufficient time prior to travel for serology to be performed (which would be why the doctor would be opting for an accelerated schedule in the first place).		evidence that antibodies wane faster following an accelerated schedule.
9	Australasian College of Tropical Medicine	No, it is unlikely, as all of the suggestions in the submission are based on existing clinical evidence. Any suggestions made that differ from your document are outlined in our submission and are supported by existing clinical evidence.	**Reviewed. No change in recommendation made.**	Comment noted with thanks.
10a	Public Health Services, Tasmanian Department of Health	We find the changes to the rabies disease chapter of the Australian Immunisation Handbook are useful and keep pace with some changes to the evidence base. In particular, the expansion of scenarios with practical advice about continuation of PEP regimes commenced overseas for the returned traveller are useful.	**Reviewed. No change in recommendation made.**	Comment noted with thanks.

No.	Organisation	Comment	Proposed action	Rationale
10b	Public Health Services, Tasmanian Department of Health	Noting that ID vaccination is 'off label', some data about the effectiveness of the ID routine, including the accelerated ID regime, against the 'gold standard' IM route are needed to inform consent and use.	**Reviewed. No change in recommendation made.**	Evidence of effectiveness of an ID regimen is provided in the document and will be included in the Australian Immunisation Handbook.
10c	Public Health Services, Tasmanian Department of Health	There is a need for clarity about the recommendation for a booster dose 1 year after PEP, and whether it applies for those who have received the ID regime or the IM regime or both.	**Reviewed. Change made to recommendation.**	The advice about a booster dose after accelerated PrEP is for both ID and IM regimens. The text will be edited to improve the clarity of this.
11	Sanofi Pasteur ANZ	As a major global manufacturer of rabies vaccines with several decades of experience in rabies vaccine research, development and production, Sanofi Pasteur welcomes ATAGI's initiative to update the chapter on rabies in the Australian Immunisation Handbook. Sanofi Pasteur supports the proposed changes related to route of vaccination and immunisation schedule. We would like to raise the following issues regarding the proposed changes. We note that ATAGI recognises the need to 'increase uptake of pre-exposure prophylaxis among travellers' and 'increase compliance with rabies pre-exposure prophylaxis in travellers who present for immunisation shortly before travel' (page 8 of proposed changes). However, it is also noted that the current recommendation for travellers is not to be updated. Sanofi Pasteur feels that the current recommendation is ambiguous and doesn't encourage healthcare practitioners to adequately discuss the risk of potential rabies exposures with	**Reviewed. Change made to recommendation.**	Comment noted with thanks. The wording of the risk assessment section of the Handbook will be expanded to indicate exposure through uninitiated contact. The risk to young children is already noted several times, as is the difficulty in accessing RIG.

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		travellers visiting rabies-enzootic countries. Most Australian short-term travellers (~51% (~6 million) in 2019 (ABS data)[1] visited Asia or Africa, areas where most rabies cases in humans occur.[2] Globally, it is estimated that 1 in 700 travellers will be at risk of a potential rabies exposure during their journey (ie an animal bite).[3] Although no national surveillance data are available for the number of potential rabies exposures in returned travellers, some states do record data on potential rabies exposures. Queensland, for example, has shown that there are approximately 300 cases of potential rabies exposure per year (average from 2017 to 2019)[4] across a population of around 5 million. This is likely to be an underestimate, as presenting for PEP requires an understanding of the risk of exposure at an individual traveller level, which Sanofi Pasteur feels is lacking in travellers. Furthermore, a study of Australian travellers presenting for PEP found that 40% did not initiate contact with the animal that bit them, suggesting that simple advice to avoid animals (as per the current recommendation) is an insufficient preventive measure. This study also found that most travellers had difficulty obtaining PEP overseas, resulting in delays in receiving potentially lifesaving vaccine.[5] Finally, we feel that the current recommendation for travellers does not adequately address the heightened risk that children face in rabies-enzootic countries. Data suggest that 40% of rabies cases occur in children under the age of 15.[2] The CDC (United States Centers for Disease Control and Prevention) proactively recommends this group to be immunised when visiting rabies-enzootic countries		

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		(eg Thailand, Indonesia).[6] Sanofi Pasteur believes that the risk in this group needs to be clearly highlighted. In summary, Sanofi Pasteur feels that further clarity on the risk of potential rabies exposure and the use of PrEP in Australian travellers will help increase the vaccination coverage rates, and thus help reduce the risk to Australian travellers and the burden of extensive PEP faced by travellers and the public health system. It is likely that, when travel does resume (post-COVID-19), Asia will once again be one of the main destinations for Australian travellers, meaning that an update and implementation of the recommendation will be even more important. We look forward to working with ATAGI and sharing our expertise in the field of rabies protection for the benefits of all Australians and Australian public health. References: 1. Australian Bureau of Statistics. Tourism and transport. (Accessed Nov 2020). https://www.abs.gov.au/statistics/industry/tourism-and-transport 2. Knobel DL, Cleaveland S, Coleman PG, et al. Re-evaluating the burden of rabies in Africa and Asia. Bulletin of the World Health Organization 2005;83(5):360–8.		

No.	Organisation	Comment	Proposed action	Rationale
		3. Steffen R. Travel vaccine preventable diseases: updated logarithmic scale with monthly incidence rates. Journal of Travel Medicine 2018;25(1). 4. Queensland Health. Notifiable conditions annual reporting. (Accessed 15 Nov 2020). https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/diseasesinfection/surveillance/reports/notifiable/annual 5. Mills DJ, Lau CL, Weinstein P. Animal bites and rabies exposure in Australian travellers. Medical Journal of Australia 2011;195(11):673–5. 6. Centers for Disease Control and Prevention. Travelers health: Thailand, clinician view. (Accessed 15 Nov 2020). https://wwwnc.cdc.gov/travel/destinations/clinician/none/thailand?s_cid=ncezid-dgmq-travel-single002		
12	Individual	It is extremely difficult to do rabies VNAb assays in Australia. The assay is only available at the Australian Centre for Disease Preparedness (formerly the Australian Animal Health Laboratory) near Geelong, Victoria. It is not a commercial pathology service provider and does not offer regular rabies VNAb assay. Even having overcome the logistics, the test is very expensive, and is not Medicare claimable. I very seriously doubt the practical value of insisting that rabies VNAb be routinely performed after ID PrEP. Such	**Reviewed. No change in recommendation made.**	A review of EIAs as an alternative to the VNAb assay is outside the scope of the current update. This will be considered in the future.

No.	Organisation	Comment	Proposed action	Rationale
		a recommendation defeats the purpose of administering ID PrEP rapid schedule and renders it unaffordable for the average international traveller. When we check post-vaccination rabies immunity, we generally request EIA (enzyme immunoassay) as a surrogate for VNAb. Such assays are readily available via major pathology service providers in Australia, and Medicare claimable. However, despite being supported by some medical literature, EIAs are generally not yet considered gold standard. May ATAGI review the value of such EIAs as a substitute for VNAb please?		
13	Queensland Health	CDB (the Communicable Diseases Branch) is supportive of ATAGI's proposed changes to the rabies disease chapter of the Australian Immunisation Handbook. The changes will bring rabies vaccination into alignment with the WHO current position on rabies immunisation and in line with the best clinical advice. In summary, the proposed changes: 1. allow pre-exposure rabies vaccine to be given ID or IM (current recommendation is IM administration only) 2. allow pre-exposure doses to be given in a shorter time frame (an 'accelerated' schedule), which will be beneficial for people requiring protection with a short lead time (eg some travellers)	**Reviewed. No change in recommendation made.**	Comment noted with thanks. ATAGI recommends both a standard ID schedule and an accelerated schedule.

No.	Organisation	Comment	Proposed action	Rationale
		3. recommend booster doses for people at ongoing risk of exposure to rabies virus or lyssavirus in their jobs 1 year after their 1st vaccine course, and every 3 years after that 4. specify the number of vaccine doses and RIG for people who are mildly immunocompromised and people who are severely immunocompromised 5. add clarity to supporting information for several current recommendations, to help immunisation providers and public health specialists make evidence-based decisions about rabies vaccination. The 'accelerated' schedule comprises 2 vaccine doses given via the ID route at each visit on day 0 and day 7. Note: Rabies vaccine is currently given as an IM injection with 1 dose at 0, 3 and 7 days. If the 'accelerated' PrEP schedule is used, then the vaccine must be administered via the ID route, not the IM route. CDB agrees with the potential risks identified in the public consultation paper. Given that most vaccines in Australia are either administered via the IM or subcutaneous route, many providers will not have had experience using the ID route of administration. (Note: only BCG, TST/Mantoux test and the Q fever test are given via the ID route.) Because ID vaccination is not common practice, providers will require training prior to using this route of administration. IM injection is still recommended for PEP. However, there is a potential		

No.	Organisation	Comment	Proposed action	Rationale
		risk that, if the vaccine is inadvertently administered via the ID route for PEP, the person may not be adequately protected. To mitigate the risks, ATAGI is strongly recommending that ID vaccination should only be provided by suitably qualified practitioners who are experienced and regularly practise the ID technique. Once the proposed changes are approved, CDB will issue advice to providers stating that rabies vaccine should only be administered via the ID route by clinicians with expertise in the ID technique and only for patients requiring an 'accelerated' course for PrEP.		
14a	Australasian College of Tropical Medicine	Page 4: 'People who are immunocompromised with potential rabies virus exposure who have not previously received rabies vaccine are recommended to receive at least 5 doses of rabies vaccine as post-exposure prophylaxis, with or without rabies immunoglobulin.' Our comment: Suggest referencing the table 'Unvaccinated people: post-exposure rabies treatment based on immune status and exposure history' (this will avoid misinterpretation of the above statement).	**Reviewed. No change in recommendation made.**	The information on page 4 of the document is a list of recommendations that are being changed. Where the advice is actually provided (pages 20–21), it is with the table.
14b	Australasian College of Tropical Medicine	Page 4: 'People who have received rabies vaccine and are immunocompromised; those who received the vaccine intradermally; or those who are at ongoing risk of rabies are recommended to have serological testing — merged into supporting information under several recommendations.'	**Reviewed. No change in recommendation made.**	The level of risk for a traveller, even one visiting high-risk countries regularly, is likely to be lower than the risk for someone working with live rabies virus/lyssavirus or handling

No.	Organisation	Comment	Proposed action	Rationale
		Page 14: 'People with exposure to bats in Australia or overseas, and people who are likely to be exposed to potentially rabid terrestrial mammals overseas — these people should have a single intramuscular booster dose 1 year after their 1st dose of rabies vaccine pre-exposure prophylaxis. These people should have VNAb titres measured every 3 years after that, and if their VNAb titre is <0.5 IU per mL, they should have a further single intramuscular booster dose. Alternatively, after the 1st booster dose, they can have a further single intramuscular booster dose every 3 years without determining the VNAb titre.' Our comment: 'Those who are at ongoing risk of rabies' may need clarification. Serology is done for those having the vaccine ID, those who are immunosuppressed and those who are at ongoing occupational risk of rabies. Some travellers may be considered as having ongoing risk of rabies but it is not recommended to routinely do serology on travellers once they have completed the PrEP (standard schedule or accelerated with the 1-year booster).		potentially rabid animals in the course of their occupation. The recommendation for routine serological testing and repeat vaccination is based on this risk.
14c	Australasian College of Tropical Medicine	Page 5: 'Recommendations that are not changing. Travellers to rabies-enzootic regions are recommended to have a risk assessment to guide vaccination decision-making, and all travellers should avoid exposure to rabies virus and other lyssaviruses.' Our comment: Risk assessment of animal bites is not as simple as it may sound. In a study of animal bites and rabies exposure in Australian travellers, 40% did not initiate contact with an animal (ie it	**Reviewed. Change made to recommendation.**	Comment noted with thanks. The wording of the risk assessment section of the Handbook will be expanded to indicate exposure through uninitiated contact. The difficulty in accessing RIG has already been noted.

No.	Organisation	Comment	Proposed action	Rationale
		was unpredictable and largely unavoidable). Also, only 14% were able to obtain RIG overseas. The draft guidelines discussed that risk assessment should include access to emergency medical treatment; however, it should also specifically mention that RIG is often very difficult or impossible to obtain in many developing countries, and include this in the risk assessment. This may reduce the threshold for vaccination of travellers. Reference: https://www.mja.com.au/journal/2011/195/11/animal-bites-and-rabies-exposure-australian-travellers		
14d	Australasian College of Tropical Medicine	Page 6: 'The intradermal technique is not commonly used in Australia. Incorrect administration of rabies vaccine by the intradermal route may mean the person is not adequately protected, which can have fatal consequences, particularly if the person may have been exposed to rabies virus or a lyssavirus. ATAGI considers that the intradermal route should only be used by suitably qualified and experienced providers, and only for pre-exposure prophylaxis, not post-exposure prophylaxis or booster doses. In addition, ATAGI considers that dose sparing is a lesser consideration in Australia because rabies vaccination is uncommon. An opened vial of vaccine must be discarded after 8 hours; so many clinics are not likely to vaccinate enough people in one day (5 to 8 people) for dose sparing to make a substantial difference.' Our comment: The guidelines could mention the special setting of travel medicine clinics in these contexts. Travel clinics are generally	**Reviewed. Change made to recommendation.**	Additional information has been included highlighting those experienced with ID vaccination and considerations when using the ID route. Additional information on the dose-sparing benefit in travel medicine clinics has ben added to the document.

No.	Organisation	Comment	Proposed action	Rationale
		much more experienced with risk assessment related to rabies exposure in travellers, and more familiar with the pros and cons of pre-exposure vaccination. Nurses are highly skilled at giving ID vaccines. Rabies vaccines are frequently given, so they can make use of dose sparing by using the ID route (ie cost saving). Many travel clinics now use the ID route more frequently than IM for PrEP. It is likely that the majority of rabies PrEP vaccines given in Australia are given within travel medicine clinics.		
14e	Australasian College of Tropical Medicine	Page 6: 'ATAGI does not consider that accelerated schedules for post-exposure prophylaxis are acceptable in the Australian context, as the only WHO-endorsed regimens use intradermal vaccination. However, doses given overseas as post-exposure prophylaxis, either intradermally and/or as part of an accelerated schedule, are accepted as valid doses.' Page 14: 'Always give booster doses of rabies vaccine by the intramuscular route. Never use the intradermal route to administer booster doses.' Our comment: ID vaccines could be considered for PEP, particularly if they had ID for PrEP and post-vaccination serology has confirmed seroconversion. This may save them money, and there would be no	**Reviewed. No change in recommendation made.**	Given the potential for ID vaccination to be administered incorrectly, and the importance of PEP for providing protection after exposure, ATAGI considers IM the appropriate route for PEP doses.

No.	Organisation	Comment	Proposed action	Rationale
		increased risk as immunity would be assured based on serology confirmation. The cost saving for the individual may not be as crucial if the post-exposure doses are government funded.		
14f	Australasian College of Tropical Medicine	Page 7: 'People who are immunocompromised. The UK Joint Committee on Vaccination and Immunisation (JCVI) provides 2 levels of classification of immunocompromise for the use of rabies vaccines and RIG. The JCVI specifies that people with severe immunocompromise are recommended to have a full rabies vaccine schedule and RIG for post-exposure prophylaxis after a category II or III exposure, regardless of past vaccination. Severe immunocompromise is defined as those for whom live vaccines are contraindicated.[2] ATAGI considers that the JCVI recommendation and definition of severe immunocompromise are appropriate for the Australian context. ATAGI notes that the revised WHO position recommends that people who are immunocompromised and have had a category II or III exposure should receive RIG, even if they have received pre-exposure prophylaxis. The WHO states that people with an immunocompromising condition who are monitored and well managed should not be considered immunocompromised, as they can respond adequately to rabies vaccine. However, the WHO does not further classify immunocompromising conditions. It only describes people with HIV who are not receiving antiretroviral therapy or whose CD4+ cell count is below the minimum cell count criteria as immunocompromised.'	**Reviewed. No change in recommendation made.**	The information in the table for unvaccinated individuals is correct. The text above the table for vaccinated individuals referring to VNAb titres is only relevant for vaccinated individuals. The Handbook has several chapters describing immunocompromise, and the definition of mild and severe immunocompromise with regard to rabies will be clearly articulated across these.

No.	Organisation	Comment	Proposed action	Rationale
		Our comments: These definitions of immunosuppression may be confusing. This is particularly so when considering the JCVI position quoted in the PHE reference (2), in Annex 1: Immunosuppression definitions. It divides immunosuppressed individuals into 2 categories: - individuals who lose or may not maintain adequate antibody levels from previous vaccination or rabies treatment prior to immunosuppression - individuals who may be able to maintain an adequate antibody from previous vaccination or rabies treatment. From your description, it seems that these are the 2 categories that you refer to in this document of severely immunosuppressed and mildly immunosuppressed. However, it is mentioned that severely immunosuppressed means that 'live vaccines cannot be given'. Even though those in the second category may be capable of mounting an immune response, they would still be categorised as not being able to be given a live vaccine. The recommendations may therefore cause some confusion. The main area where we feel this may cause some confusion is for recommendations for PEP on page 20 of the document: 'Table.		

No.	Organisation	Comment	Proposed action	Rationale
		Vaccinated people: post-exposure rabies treatment based on immune status and exposure category Vaccinated people have evidence of a completed recommended pre-exposure prophylaxis regimen at any time in the past, or have a documented rabies virus neutralising antibody (VNAb) titre of >0.5 IU per mL at any time in the past. For those with a history of partial immunisation, see "Incomplete pre-exposure prophylaxis schedule".' Also page 31: 'Figure. Rabies post-exposure prophylaxis: bat exposures'. Our comment: On page 21, the recommendation for PEP for unvaccinated people is the same as the recommendation for mildly and severely immunosuppressed. The information provided above this table mentions those that have a documented rabies VNAb titre of >0.5 IU per mL at any time in the past as being able to receive the shortened schedule with no HRIG. This would not be the case in the severely immunosuppressed who have had PrEP rabies vaccines with a subsequent positive serology. Page 24: 'The WHO 2018 guidance specifies that people who are immunocompromised should receive 5 doses of rabies vaccine plus RIG, regardless of whether they have been previously vaccinated.[1] It specifies immunocompromise with regard to HIV-positive people with CD4+ cell counts of <200 per µL, but does not do this for other types of immunocompromise. The JCVI provides further guidance,		

No.	Organisation	Comment	Proposed action	Rationale
		specifying this recommendation for those who are severely immunocompromised (defined as those for whom live vaccines are contraindicated).' Our comment: This may not be clear given comments above re JCVI classification and definition of immunocompromised where live vaccines are contraindicated.		
14g	Australasian College of Tropical Medicine	Page 9: 'It is not given to people taking chloroquine, or other antimalarials that are structurally related to chloroquine (such as mefloquine or hydroxychloroquine), at the time of vaccination or within 1 month after vaccination.' Our comment: It would be much more common to have a patient on hydroxychloroquine used for treating autoimmune conditions such as discoid lupus, SLE or RA rather than as an antimalarial. Chloroquine is rarely used for malaria prophylaxis nowadays because of drug resistance. Mefloquine is still used in a small number of travellers. This is also discussed on page 13 of your document.	**Reviewed. No change in recommendation made.**	Although it is correct that hydroxychloroquine will more likely be used for autoimmune conditions, it is still classed as an antimalarial.
14h	Australasian College of Tropical Medicine	Page 10: 'accelerated 3-dose intramuscular schedule: – 1st dose on day 0 – 2nd dose on day 3 – 3rd dose on day 7.'	**Reviewed. No change in recommendation made.**	Our review of the available evidence demonstrated a lack of immunogenicity data for the WHO-recommended 2-visit IM schedule, with the recommendation made based on indirect evidence from an

No.	Organisation	Comment	Proposed action	Rationale
		Our comments: In the 2018 WHO position paper (Rabies vaccines: WHO position paper — April 2018. https://www.who.int/publications/i/item/who-wer9316), a 2-dose schedule, days 0 and 7, was recommended for pre-exposure rabies prophylaxis. A large amount of evidence was provided in this document to support this schedule. You have suggested the above schedule, which is supported by the JCVI in the English Green Book (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/723607/GreenBook_chapter_27_rabies.pdf). The day 3 dose therefore seems superfluous.		ID schedule. There was supporting evidence for the JCVI-recommended 3-visit IM schedule we have recommended.
14i	Australasian College of Tropical Medicine	Page 21: 'People who are immunocompetent and have previously received an incomplete pre-exposure prophylaxis schedule of 2 doses can receive the 2-dose post-exposure prophylaxis schedule described above.' Our comment: This recommendation supports using the 2-dose 0 and 7 days schedule for PrEP (see comments above). Travellers are a very different cohort to occupationally exposed bat handlers, and could be considered to have their own specific recommendations for PrEP. Travellers are the very cohort that are more likely to require accelerated PrEP courses, not occupationally exposed bat handlers.	**Reviewed. No change in recommendation made.**	ATAGI bases its recommendations on the best possible evidence. The best evidence supports a 3-dose IM PrEP schedule; however, ATAGI also needs to provide advice on managing individuals who have not completed this schedule. Although ATAGI does not consider a 2-dose IM PrEP schedule optimal, for the purpose of classifying someone for PEP, they can be considered previously vaccinated.

No.	Organisation	Comment	Proposed action	Rationale
14j	Australasian College of Tropical Medicine	Page 10: 'accelerated 4-dose intradermal schedule comprising 2 vaccine doses at each visit: – 2 × 0.1 mL injections given at different sites on day 0 – 2 × 0.1 mL injections given at different sites on day 7.' Our comments regarding the use of accelerated schedules in older persons: Based on our previous studies, accelerated ID PrEP schedules are best avoided in persons over the age of 50 because of the higher probability of no response. The IM rapid course of 2 doses on day 0 and day 7 would be preferable in persons aged over 50, which could be done in the same time frame as the above schedule. An Australian study suggested that older persons did not respond as well to rapid courses as younger age groups; persons older than 50 years of age were more likely to be seronegative 1 month post-vaccination (see figure below). Reference: Mills DJ, Lau CL, Fearnley EJ, Weinstein P. The immunogenicity of a modified intradermal pre-exposure rabies vaccination schedule: a case series of 420 travelers. Journal of Travel Medicine 2011;18(5):327–32. Also good evidence from another Australian study that, for ID PrEP in older persons, 0/7/21–28 is more effective than accelerated schedules.	**Reviewed. Change made to recommendation.**	Comment noted with thanks. Additional guidance will be provided to avoid the accelerated ID schedule in people aged >50 years.

No.	Organisation	Comment	Proposed action	Rationale
		Reference: Furuya-Kanamori L, Ramsey L, Manson M, Gilbert B, Lau CL. Intradermal rabies preexposure vaccination schedules in older travellers: comparison of immunogenicity postprimary course and post-booster. Journal of Travel Medicine 2020;27(7);taaa006. https://academic.oup.com/jtm/advancearticle/ doi/10.1093/jtm/taaa006/5704962		
14k	Australasian College of Tropical Medicine	Page 10: 'These accelerated schedules provide protection for short-term travel to rabies-enzootic areas. If further travel to rabies-enzootic areas is planned after 1 year, antibody levels may no longer be adequate. A single intramuscular booster dose should be given 1 year after the 1st dose of pre-exposure prophylaxis.' Our comment: This booster was not recommended in the WHO position statement and would not be needed to qualify for the 2-dose PEP.	**Reviewed. No change in recommendation made.**	The booster dose 12 months after an accelerated PrEP schedule is only recommended for those with ongoing exposure, based on evidence that antibodies wane faster following an accelerated schedule. The recommendation for a booster dose is unrelated to the guidance around PEP and previous vaccinations.
14l	Australasian College of Tropical Medicine	Page 15: 'Figure. Booster algorithm for people at ongoing risk of exposure to rabies virus or other lyssaviruses.' Our comment on bat carers having routine boosters at 3 years: This is better than recommending boosters at 2 years, but the guidelines could perhaps more strongly recommend that serology testing prior to booster may be preferable, if available, as some bat carers get many exposures and hence multiple doses of post-exposure vaccines over their lifetime. There is potential for such patients to become	**Reviewed. No change in recommendation made.**	Our guidance for occupational exposure to bats advises to check VNAb titre after 3 years and then vaccinate if the titre is <0.5 IU/mL. Vaccinating without checking VNAb titre is only presented as an alternative.

No.	Organisation	Comment	Proposed action	Rationale
		hypersensitised to the rabies vaccine, and serum sickness reaction that has been reported with HDCV vaccine. Although it is recommended that HDCV should not be used for bat carers, when possible, the issue of serum sickness from HDCV vaccine may be something that some vaccination providers are not aware of, and routine boosters may increase risk of this over a lifetime. Reference: Warrington RJ, Martens CJ, Rubin M, Rutherford WJ, Aoki FY. Immunologic studies in subjects with a serum sickness-like illness after immunization with human diploid cell rabies vaccine. Journal of Allergy and Clinical Immunology 1987;79(4):605–10.		
14m	Australasian College of Tropical Medicine	Other comments: Administration of HRIG was not specifically mentioned in this document. We think it would be pertinent to mention the updated recommendations for HRIG administration, as in the UK JCVI Green Book: 'HRIG is of greatest value when infiltrated at the wound site as it neutralises rabies virus at the wound site before the immune system can respond to the vaccine by producing antibodies. Where HRIG is recommended, every effort should be made to administer HRIG at the wound site rather than intramuscularly, as the benefit of intramuscular administration away from the site of the wound is likely to be negligible (WHO, 2018b)'. Reference: https://assets.publishing.service.gov.uk/government/uploads/syste	**Reviewed. No change in recommendation made.**	Use of HRIG is described on pages 21–22.

No.	Organisation	Comment	Proposed action	Rationale
		m/uploads/attachment_data/file/723607/GreenBook_chapter_27_rabies.pdf		

3. Appendix A – Public consultation distribution list

An email was sent on 19 October 2020 to the following organisations and committees to provide advice on the consultation:

- Communicable Diseases Network Australia
- National Immunisation Committee
- Australian Technical Advisory Group on Immunisation
- Advisory Committee on Vaccines
- General Practice Roundtable
- Royal Australasian College of Physicians
- Primary Health Networks
- Consumers Health Forum of Australia
- Australian Association of Practice Managers
- National Health and Medical Research Council