13/7/17

Dear Doctor

VPD and Hepatitis B Vaccine Shortage

There is some confusion about QHealth Vaccine Preventable Disease (VPD) requirements and how to deal with these during a prolonged Hepatitis B vaccine shortage.

To meet the Queensland Health requirements, prospective employees or students in a hepatitis B risk role will need to show that they comply with the following requirements:

1) Have completed or partially completed (minimum of two vaccines are required) a course of immunisation, OR
2) Are immune (antibody level at or above 10 IU/ml now or at any time in the past), OR
3) Are not susceptible to hepatitis B.

VPD forms are only needed for QH health-related student placements and for QH health workers applying to a different employer (health service or HHS). See https://www.health.qld.gov.au/__data/assets/pdf_file/0024/443076/vpd-evidence-form-gp.pdf

For Queensland Health policies, search for “QHealth VPD” but note: requirements for other employers or universities may not yet be consistent with these documents.

Doctors should avoid unnecessary testing, particularly if the results will be redundant, ambiguous, or not actionable because of vaccine shortage. Follow these steps:

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>If VPD requirement is met:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Check ALL sources for vaccination records</td>
<td>STOP</td>
</tr>
<tr>
<td>2</td>
<td>Check PREVIOUS serology records (Antibody levels decline with time. A level of 10 IU/ml at any time in the past indicates immunity)</td>
<td>STOP</td>
</tr>
<tr>
<td>3</td>
<td>Test CURRENT antibody levels and check for chronic Hepatitis B (start with anti-HBs, anti-HBc, and HBsAg)</td>
<td>STOP if any are positive. Write letter for employer or training provider if person is not susceptible due to previous or current infection</td>
</tr>
<tr>
<td>4</td>
<td>Begin catch-up vaccine(s) where indicated</td>
<td>See below: shortage</td>
</tr>
<tr>
<td>5</td>
<td>Hep B booster / challenge dose when indicated, then serology @ 4-8 weeks later</td>
<td>See below: shortage</td>
</tr>
</tbody>
</table>

When a person cannot (immediately) meet the VPD requirements for either a health or educational setting there is provision for the institution to invoke “exceptional circumstances”, including a risk assessment by the employer / training provider. Doctors should document their findings in a letter for the employee/student to take to their employer/training provider.

Vaccine Service Providers can check vaccination records on the Australian Immunisation Register (AIR). Enrol for access at: www1.medicareaustralia.gov.au/ssl/acirCIRGRACC

NOTE: Previous doses may not be available on AIR – (Please contact your local Public Health Unit to check VIVAS)
Hepatitis B Vaccine Shortage

There is an international shortage of ‘adult’ vaccine but this is spilling over into combination and ‘paediatric’ products. This could continue for a year or more.

What to do

- Conserve your hepatitis B vaccine stock for those at most risk: contacts of carriers, needle stick injury, high risk behaviours and those at occupational risk
- Delay vaccinating those in low risk occupational groups (such as clerical or administration staff for example, until the vaccine shortage has resolved)
- Avoid ‘accelerated’ schedules that in fact require more vaccine doses
- Use alternative products which may mean redundant doses of other antigens such as the Hepatitis A component of Twinrix
- If you must give a booster / challenge dose to prove hepatitis B immunity for VPD, consider using a ‘paediatric’ dose because people will respond anyway

Hep B products and Interchangeability

- When necessary, monovalent hepatitis B vaccines from different manufacturers are considered interchangeable. Refer to Table 4.5.1 in the latest Hepatitis B chapter of the Australian Immunisation Handbook
- Under age 20, three ‘paediatric’ doses is an appropriate course of vaccination
- From age 20 you should use adult hepatitis B doses
- Where appropriate two ‘paediatric’ doses may be substituted for one adult dose

For example (although not ideal) an adult over age 20 could have a 3 dose vaccination course using a combination of:

- A double dose of a H-B-Vax II paediatric vaccine
- Either brand of monovalent adult hepatitis B vaccine
- Twinrix 720/20

With appropriate intervals between doses

Note: Antigen content is measured differently in Engerix-B and H-B-Vax II but doses are interchangeable.

Please call your PHU if you have a problem interpreting the requirements.

Yours sincerely

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