Erratum: Optimal Test Strategies for Hepatitis B Vaccination with no Vertical Transmission

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Erratum:

In this short note, we provide the following minor correction in equation (4) of "Problem Formulations" section appeared in "K.T. Yannick and H.D.D. Elvis, Optimal test strategies for Hepatitis B vaccination with no vertical transmission, Gen. Math. Notes, 20(1) (2014), 19-26".

Please read a "Ψ(a)" in the first line of the equation (4). The correct form is:

one obtains that \((s, v, I, E)\) satisfies the following system of equations:

\[
\begin{align*}
(\partial_t + \partial_a + \Psi(a) + \mu) s(t, a) & = -\lambda(t)s(t, a), \quad t > 0, \quad a > 0, \\
s(t, 0) & = \Lambda, \\
(\partial_t + \partial_a + \mu) v(t, a) & = \Psi(a)s(t, a) - \delta\lambda(t)v(t, a), \\
I'(t) & = \lambda(t) \int_0^\infty p(a) (s(t, a) + \delta v(t, a)) \, da - \nu_I I(t), \\
E'(t) & = \lambda(t) \int_0^\infty q(a) (s(t, a) + \delta v(t, a)) \, da - \nu_E E(t), \quad t > 0,
\end{align*}
\]

instead of
one obtains that \((s, v, I, E)\) satisfies the following system of equations:

\[
\begin{align*}
\left( \partial_t + \partial_a + \mu \right) s(t, a) &= -\lambda(t)s(t, a), \quad t > 0, \ a > 0, \\
s(t, 0) &= \Lambda, \\
\left( \partial_t + \partial_a + \mu \right) v(t, a) &= \Psi(a)s(t, a) - \delta\lambda(t)v(t, a), \\
I'(t) &= \lambda(t) \int_0^\infty p(a) \left( s(t, a) + \delta v(t, a) \right) da - \nu_I I(t), \\
E'(t) &= \lambda(t) \int_0^\infty q(a) \left( s(t, a) + \delta v(t, a) \right) da - \nu_E E(t), \quad t > 0, 
\end{align*}
\]

This omission does not play any role on the rest of the paper.