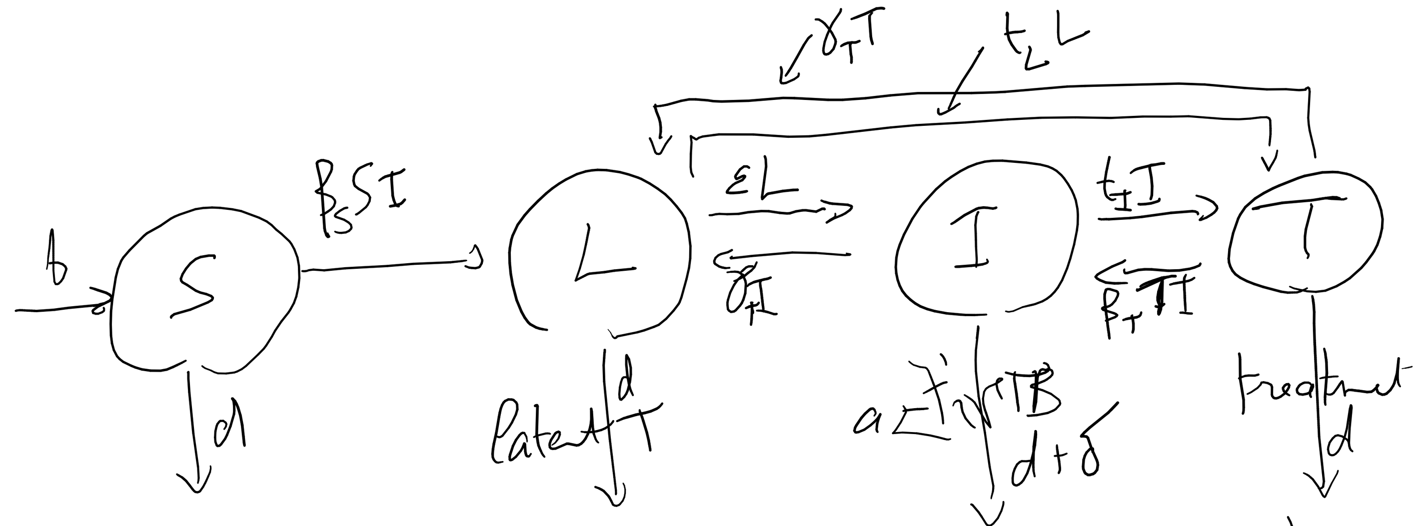

$$S' = b - dS - \beta_S S I \qquad L' = \beta_S S I + \gamma_T T + \gamma_I I - dL - \varepsilon L - t_L L$$

$$I' = \varepsilon L + \beta_T T I - (d+\delta) I - \gamma_I I - t_I I \qquad T' = t_L L + t_I I - dT - \beta_T T I - \gamma_T T$$

DFE: $L = I = T = 0$

$$\Rightarrow S^* = \frac{b}{d} \qquad \mathcal{I} = \{L, I, T\}$$

$$\mathcal{F} = \begin{pmatrix} \beta_S S I \\ 0 \\ 0 \end{pmatrix} \qquad \mathcal{V} = \begin{pmatrix} (d+\varepsilon+t_L)L - \gamma_T T - \gamma_I I \\ \gamma_I I + t_I I + (d+\delta) I - \beta_T T I - \varepsilon L \\ \gamma_T T + \beta_T T I - t_L L - t_I I + dT \end{pmatrix}$$

$$F = D\mathcal{F}_{(DFE)} = \begin{pmatrix} 0 & \beta_S S & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{pmatrix} \qquad V = D\mathcal{V}(DFE)$$

$$V = \begin{pmatrix} d+\varepsilon+t_L & -\gamma_I & -\gamma_T \\ -\varepsilon & \gamma_I + t_I + d + \delta - \cancel{\beta_T T} & -\cancel{\beta_T I}\ 0 \\ -t_L & \cancel{\beta_T T}\ -\cancel{t_I}\ 0 & \gamma_T + \cancel{\beta_T I} + d \end{pmatrix}$$

$$FV^{-1} = \begin{pmatrix} 0 & \beta_S S^* & 0 \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{pmatrix} \begin{pmatrix} V^{-1}_{11} & V^{-1}_{12} & V^{-1}_{13} \\ V^{-1}_{21} & V^{-1}_{22} & V^{-1}_{23} \\ V^{-1}_{31} & V^{-1}_{32} & V^{-1}_{33} \end{pmatrix} = \begin{pmatrix} \beta_S S^* V^{-1}_{21} & & \cancel{0} \\ 0 & 0 & 0 \\ 0 & 0 & 0 \end{pmatrix}$$

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invV[2,1];
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$$\frac{\mathit{epsilon}\,(\mathit{gamma}_T + d)}{(\mathit{gamma}_T + d)\,(t_I + \mathit{gamma}_I + \mathit{delta} + d)\,(t_L + \mathit{espilon} + d) - \mathit{gamma}_T\,(t_I + \mathit{gamma}_I + \mathit{delta} + d)\,t_L - \mathit{epsilon}\,\mathit{gamma}_I\,(\mathit{gamma}_T + d)}$$