

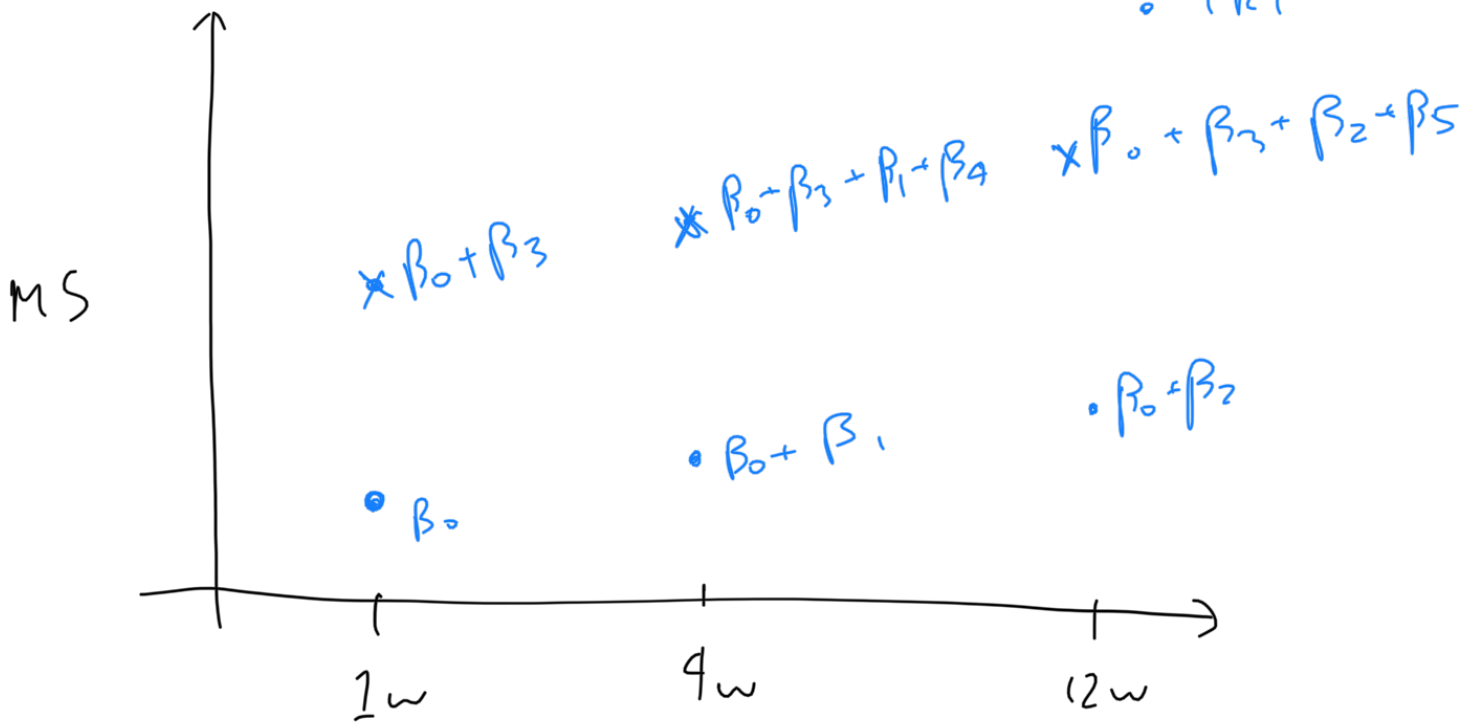
$$E = \beta_0 + \beta_1 \times \text{Time 4} + \beta_2 \times \text{Time 12} +$$

$$\beta_3 (\text{Trit} = \text{"Dry"}) + \beta_4$$

$$\beta_5$$

• Placebo

• TRT



$$E[w=4, \text{TRT} = \text{Dry}] = \beta_0 + \beta_1 + \beta_3 + \beta_4$$

$$E[w=4, \text{TRT} = \text{Wet}] = \beta_0 + \beta_1$$

To test no difference in mean change from bl to 4 weeks between groups we need to

see if  $\beta_3 = \beta_4 = 0$

Change from 4 to 12 weeks

$$E[w=12 | TMT = Drug] - E[w=4 | TMT = Drug] =$$

$$(\beta_0 + \beta_2 + \beta_3 + \beta_5) - (\beta_0 + \beta_1 + \beta_3 + \beta_4) =$$

$$(\beta_2 + \beta_5) - (\beta_1 + \beta_4) = (\beta_2 - \beta_1) + (\beta_5 - \beta_4)$$

$$E[w=12 | TMT = Control] - E[w=4 | TMT = Control] =$$

$$(\beta_0 + \beta_2) - (\beta_0 + \beta_1) =$$

$$\beta_2 - \beta_1$$

Test if  $\beta_5 = \beta_4 = 0$ .

$$\begin{aligned} \text{logit}[P(Y_{ij})] &= 0.1676 - 0.3238 \times \text{Post} - \beta_1 \\ &\quad - 0.1599 \times \text{ICgroup} + \beta_2 \\ &\quad + \underline{1.0073} \times \text{Post} \times \text{ICgroup} \beta_3 \end{aligned}$$

$$\text{Post} = 1.$$

$$\text{ICgroup} = 1 \quad \text{or} \quad 0.$$

$$\log \left[ \frac{P(Y_{ij}=1)}{1 - P(Y_{ij}=1)} \mid \text{Post}_{ij}=1, \text{Trt}_{ij}=1 \right]:$$

$$= 0.1676 - 0.3238 - 0.1599 + 1.0073.$$

$$\log \left[ \frac{P(Y_{ij}=1)}{1 - P(Y_{ij}=1)} \mid \text{Post}_{ij}=0, \text{Trt}_{ij}=1 \right] =$$

$$= 0.1676 - 0.1599$$

$$\Rightarrow \log \left[ \dots \mid \text{Post}=1 \right] - \log \left[ \dots \mid \text{Post}=0 \right]$$

$$= -0.3238 + 1.0073$$

need  $\text{Cor}(\beta_1, \beta_3)$

$$\exp(\text{logit}(p)) = \exp(\beta_0 + \beta_1 + \beta_2 + \beta_3)$$

$$\frac{p}{1-p} = \exp^{\beta_0 + \beta_1 + \beta_2 + \beta_3}$$

$$\frac{p}{1-p} = e^{\beta_0 + \beta_1 + \beta_2} \cdot \underbrace{e^{\beta_3}}$$