



CORRECTIONS

How to develop a more accurate risk prediction model when there are few events

In this Research Methods and Reporting paper (*BMJ* 2015;351:h3868, doi:10.1136/bmj.h3868), the section “Application of penalised regression” has a few text errors from the third paragraph onwards. A male patient should be considered rather than a female patient, and the risk score is -1.504 rather than -1.714 . The text should therefore read as follows:

“Consider, for example, a male patient aged 20.5 years and with 1.7 m^2 BSA, who had a 31 mm mitral valve manufactured after 1981 from a batch without fractured implants. Using the

estimated coefficients from standard regression (table), the risk score for this patient is calculated by the following formula:

$$\text{Risk score} = -7.8 (\text{intercept}) + (-0.24 \times 0 (\text{male sex})) + (-0.052 \times 20.5 (\text{age; years})) + (1.98 \times 1.7 (\text{BSA; m}^2)) + (2.62 \times 1 (\text{mitral size 31 mm})) + (0.589 \times 0 (\text{no fracture})) + (1.38 \times 1 (\text{date of manufacture after 1981})) = -1.504.$$

Therefore, the predicted risk of mechanical failure is:

$$\exp(-1.504) \div (1 + \exp(-1.504)) = 18\% \text{ (average risk is 1.8\%).}$$

When the estimated coefficients from ridge and lasso are used instead, the predicted risks are less extreme: 12% and 15%, respectively.”