

Preoperative
The
Association



“Mortality risk calculation”

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30-day postop' risk = morbidity x op' severity

preop

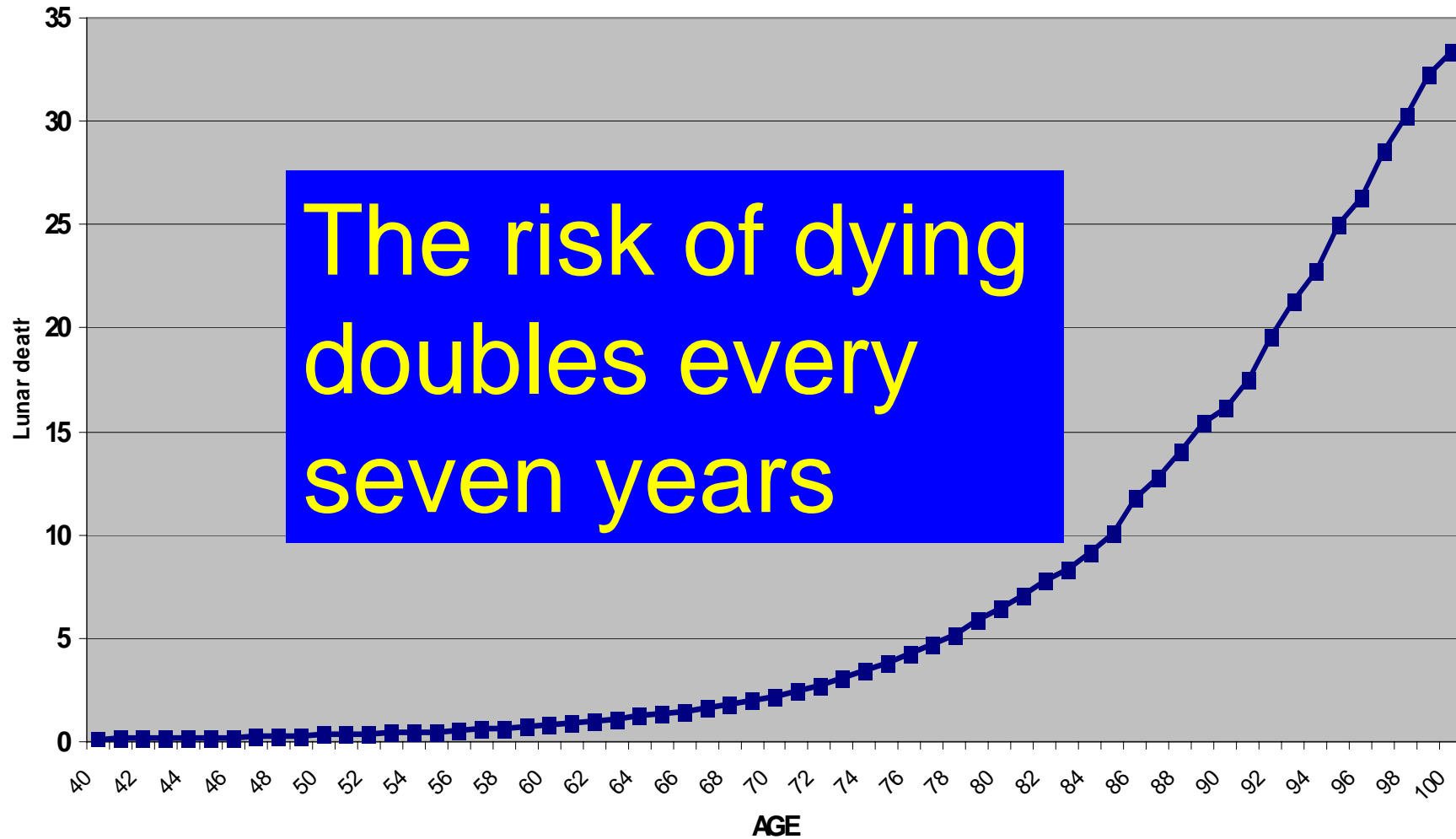


http://www.gad.gov.uk/Life_Tables/Interim_Life_Tables.htm

AGE	Per year	In next yr	Survivors	Death/yr	Years left
56	0.006441	0.006420	92008.8	590.7	23.83
57	0.007248	0.007222	91418.1	660.2	22.98
58	0.007804	0.007774	90757.9	705.5	22.14

Perioperative risk in context

Deaths per thousand per month



Perioperative risk in context

DEATHS PER THOUSAND PER MONTH

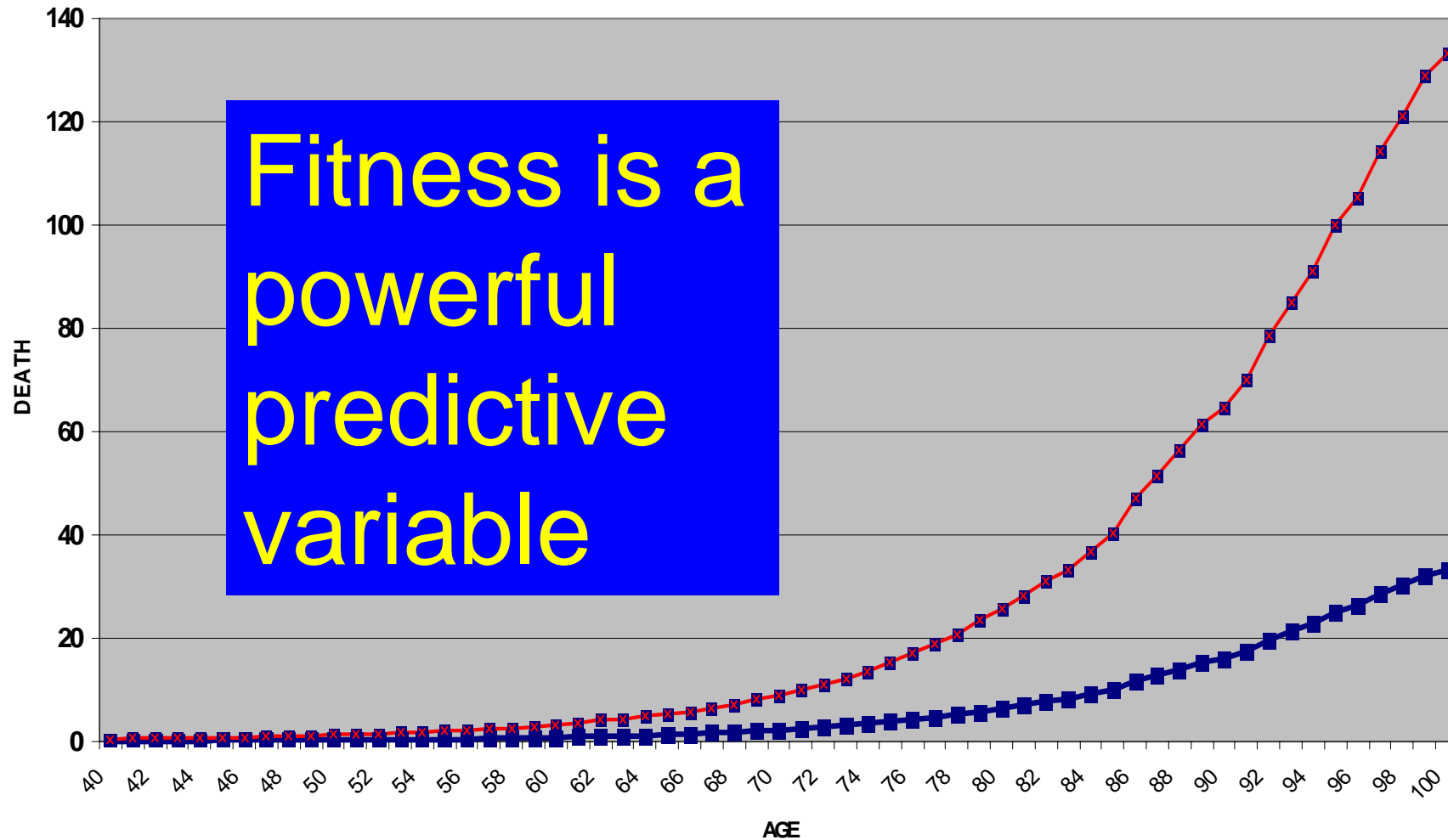


Perioperative risk in context



Perioperative risk in context

Deaths per 1000 per month



Perioperative risk in context

Risk is independently increased 1.5x by:

- Myocardial infarction

- Stroke

- Peripheral vascular disease

- Renal failure (creatinine $> 150 \mu\text{mol L}^{-1}$)

- Heart failure

Perioperative risk in context

54 woman, smokes, BP, NIDDM, MI, ISWT10

1 in 3418

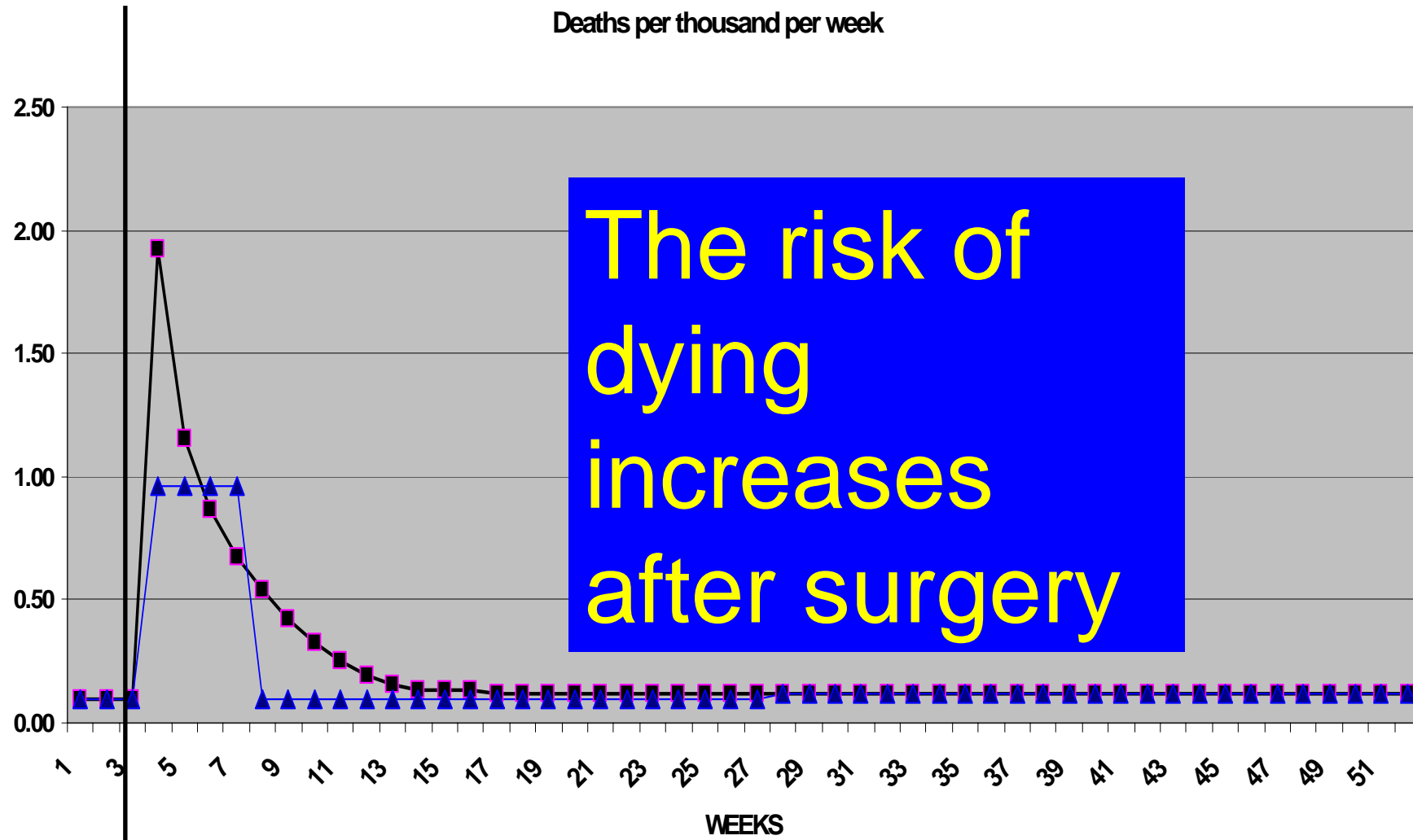
MI risk is $\times 1.5 = \underline{1.5}$ in 3418 (med surv 29yr)

Expected - observed METs $7.7 - 5.6 = 2.1$

Reduced fitness risk is $2.1 \times 1.19 = \underline{2.5}$

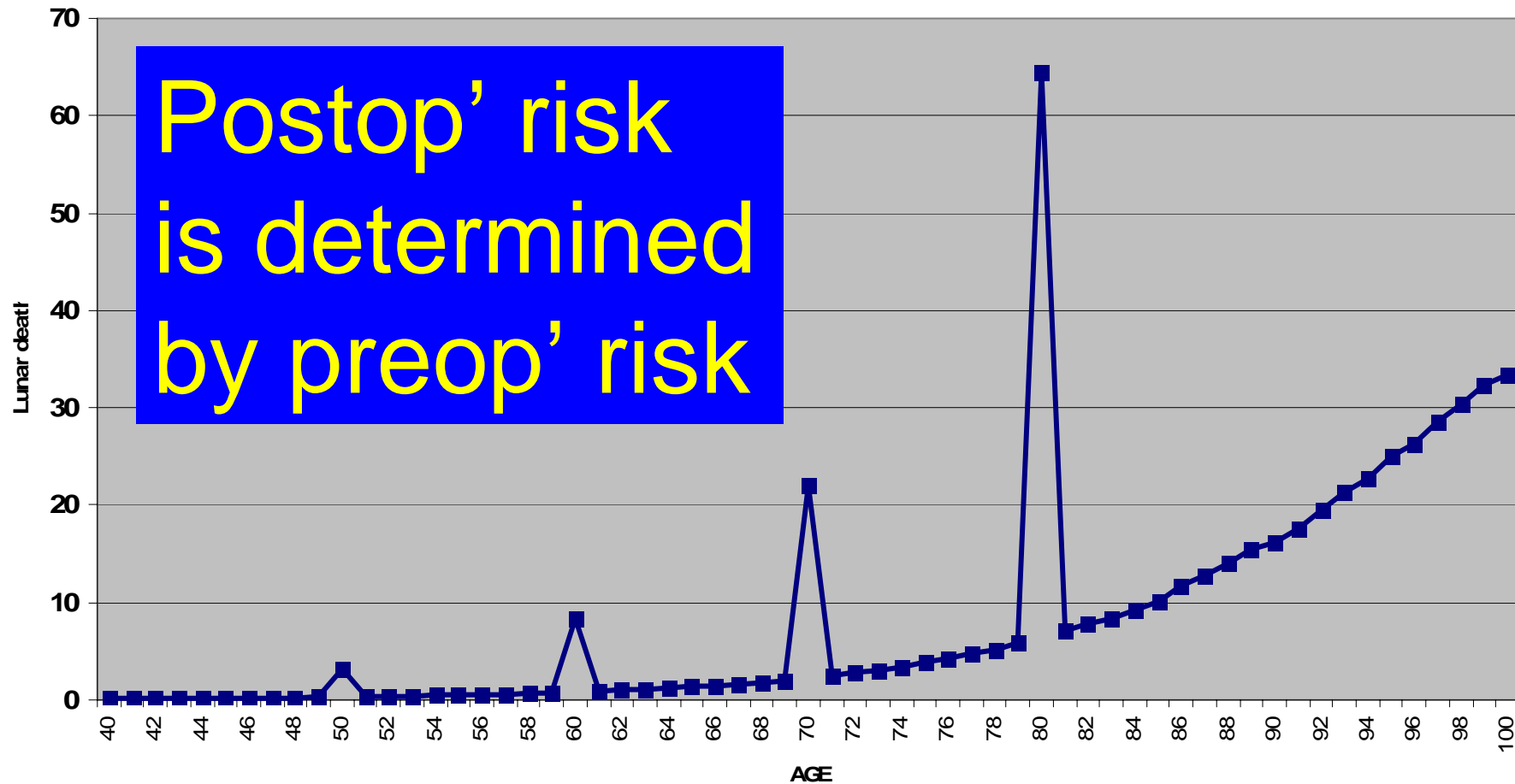
Total risk is $\underline{3.75}$ in 3418 = 1 in 910 (m.s. 17)

Perioperative risk in context



Perioperative risk in context

Deaths per 1000 per month



Perioperative risk in context

Increased risk in first postoperative month

Elective AAA repair: about x10 to x12

Abdomino-perineal resection: about x5 to x6

Major joint replacement: about x3

Laparoscopic cholecystectomy about x2

Perioperative risk in context

74 man, MI 6 yrs ago, peak VO_2 $19.7 \text{ ml kg}^{-1} \text{ min}^{-1}$

1 in 291

MI risk is $\times 1.5 = \underline{1.5}$ in 291 (med surv 10yrs)

E - O METs $6.6 - 5.6 = 1$. Risk is 1.19.

Total risk is 1.8 in 291 = 1 in 160 (m.s 7yrs).

Risk after AAA = 12 in 160 = 1 in 14 (7%)

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Postoperative risk is largely determined by preoperative risk.

Most mortality data are from primary care.

We should use these data to calculate preop' risk and collect national postoperative data to assess the risk due to surgery.