

Pharmacists are overly optimistic about medicines and can be easily influenced

Steve Haigh. Medicines Information Centre, Sherwood Forest Hospitals, Mansfield, Nottinghamshire. steven.haigh1@nhs.net

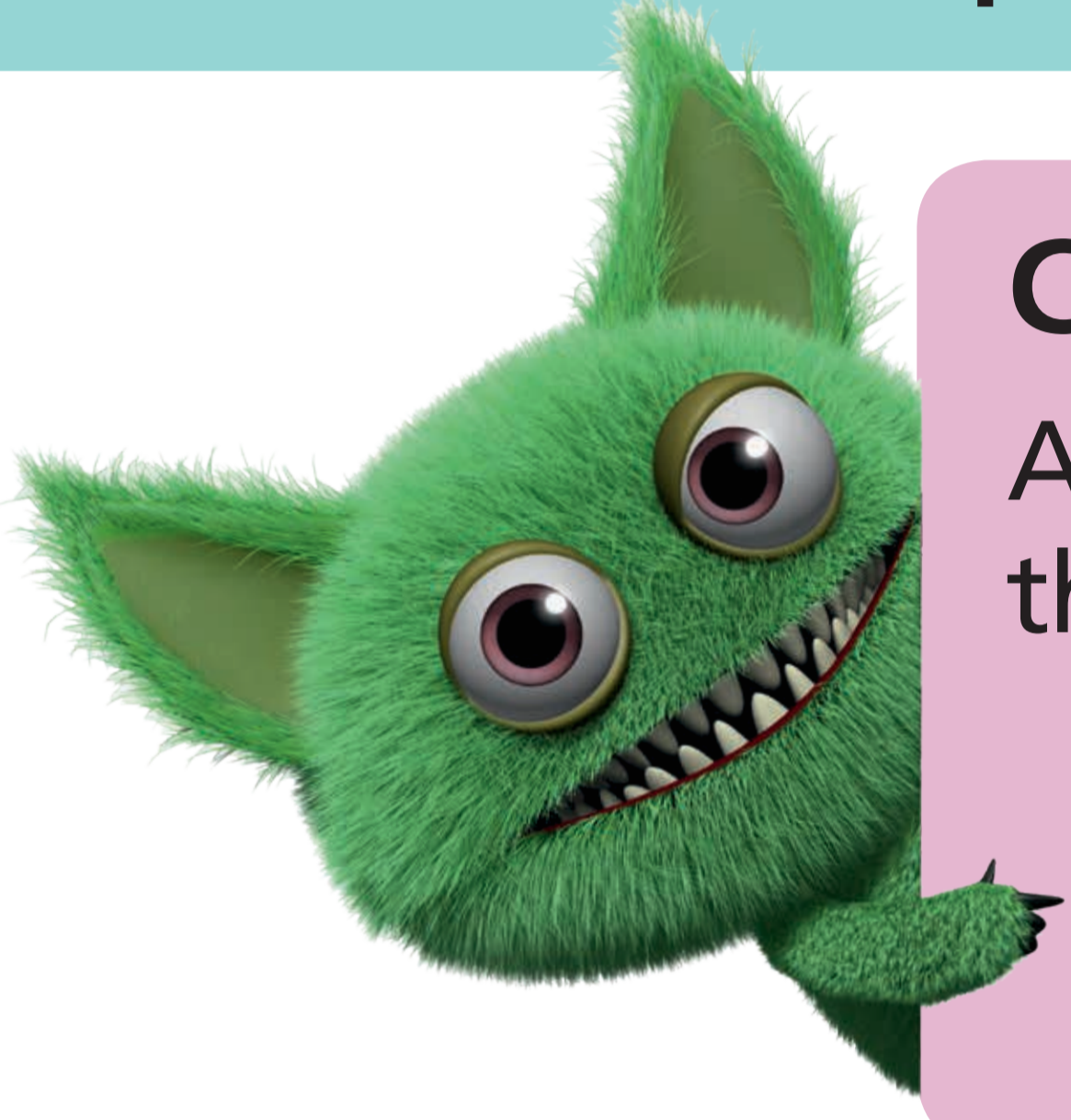
INTRODUCTION

We had a suspicion that pharmacists overestimated the beneficial effects of drugs so we set about testing that hypothesis with a simple question.

METHOD:

114 MI pharmacists/technicians on the UKMi National Training Course were asked to estimate:

1. What % of patients died without treatment within 1 year of a myocardial infarction?
2. What % of patients died if treated with an ACEi?



CUNNING PLAN:

As extra bonus research, the pharmacists were unknowingly split into 3 groups and asked the question in 3 different leading ways to see if this influenced the answers.

- Group 1 were not influenced
- Group 2 were influenced that the drug was very effective
- Group 3 were influenced that the drug was poorly effective.

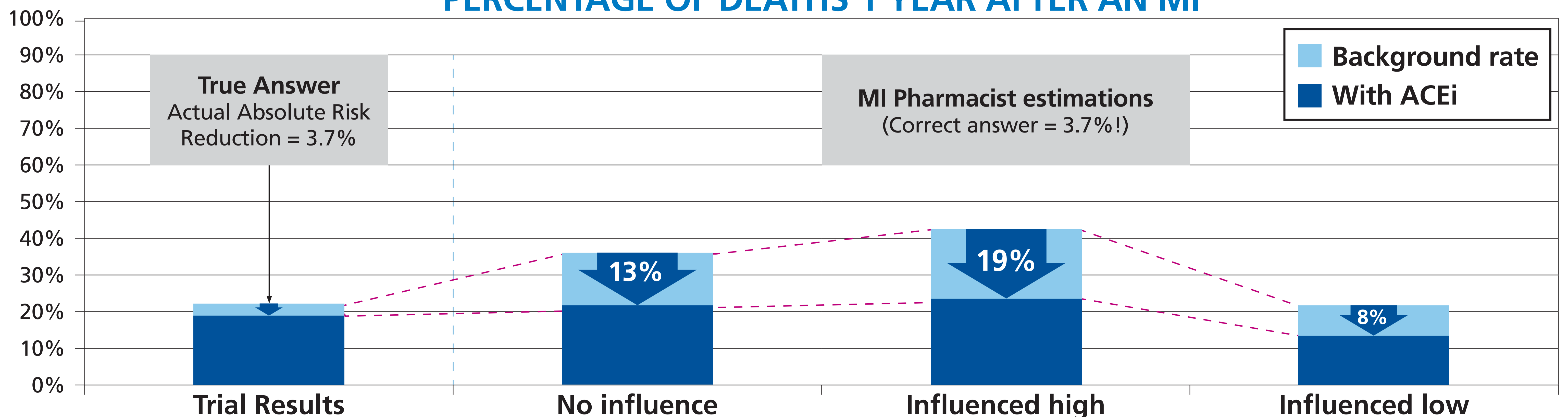
RESULTS:

According to the systematic review 23.1% of patients die within one year on placebo and 19.4% die on ACEi (1) giving an Absolute Risk Reduction (ARR) of 3.7%.

With no influence on the group, the average estimate of ARR was 13% which overestimates the benefit of the drug by a factor of x3.5!

The estimate of ARR increased to 19% (x5 overestimate) and decreased to 8% (still a x2 overestimate!) by the investigator subtly influencing the group while explaining the task.

PERCENTAGE OF DEATHS 1 YEAR AFTER AN MI



CONCLUSION:

Pharmacists tend to overestimate the benefit of drugs. This will cause an inappropriate bias when advising patients whether a drug is appropriate for them.

Reps can mislead doctors and pharmacists using many techniques, including "anchoring" to wrongly make us believe their drugs are better, less dangerous and cheaper than they actually are.

References

¹ NICE CG172, Table 51: <https://www.nice.org.uk/guidance/cg172/evidence/myocardial-infarction-secondary-prevention-full-guideline-pdf-248682925>

² Anchoring. <https://yourbias.is/anchoring>