

## Plain English summary

### What was the question?

Acne (or spots) is common and often persists into adulthood. Many people take long courses of antibiotic tablets but concerns about antibiotic resistance mean alternatives are needed. Spironolactone is a medicine that is sometimes used for acne in women. However, we do not know whether it works. This trial aimed to answer this question.

### What did we do?

We invited women aged over 18 who had acne on their face for at least 6 months to take part via their GP surgery, hospital or advertising. Women were randomly assigned to two groups: one group was given spironolactone and the other group was given identical-looking placebo ("dummy pill") daily for 24 weeks. Women in both groups could continue using acne treatments applied to the skin (gels/creams/lotions). We asked participants to rate their acne using a questionnaire called Acne-QoL, asked whether they felt their skin had improved and asked skin specialists to assess their skin.

### What did we find?

410 women took part, many of whom had had acne for a long time. Acne-QoL scores improved in both groups by 12 weeks, but improved more in the spironolactone group at 12 and 24 weeks.

When asked directly whether their skin had improved, 71% of participants in the spironolactone group said it had, compared with 43% on placebo. Skin specialists were also more likely to report the acne had improved in the spironolactone group.

Side effects were mild and similar in both groups but there were slightly more headaches on spironolactone (20% compared with 12%).

Spironolactone is likely to represent value for money for the NHS, though this depends on a number of factors including what it is compared to.

### What does this mean?

This trial suggests that spironolactone is a useful additional treatment for women with persistent acne.