

INTRODUCTION

- 80% of all antibiotics are prescribed in the community and 50% of these may be unnecessary or inappropriate. There is also public misunderstanding about how long infections usually last and when they should seek medical advice. Patient education on self-care and the benefits and harms of antibiotics for common respiratory tract infections (RTIs) is important to improve antibiotic use.
- The TARGET antibiotics toolkit includes information leaflets designed to be used during consultation to help support prescribers' and patients' responsible antibiotic use.
- Evidence shows that the use of leaflets outlining RTIs especially sharing information on the natural length of RTIs can result in reduced re-consultation rates and antibiotic prescribing.
- The TARGET Treating Your Infection Respiratory Tract Infection (TYI-RTI) leaflet aims to facilitate conversations about treatment choice giving patients the confidence to self-care for their infection at home, information on the usual illness durations and safety netting advice.
- Research surrounding the time difference antibiotics could make to the duration of RTI has been well documented. However, limited research has been conducted on the views and understanding of sharing this information with patients.

AIMS

- To explore public understanding of the TARGET TYI-RTI leaflet specifically around illness duration and treatment options.
- To explore whether information on the time difference antibiotics make to the duration of an RTI should be shared with patients during consultation.
- To determine whether information on the time difference antibiotics make to the duration of an RTI should be included in the TYI-RTI leaflet.

METHODS

- The TARGET TYI-RTI leaflet was adapted to include a column on **'the time difference antibiotics make to the duration of your illness'** (Fig.1).
- The modified TYI-RTI leaflet was shown to patients and health professionals to explore their views, understanding and acceptability of the new column.
- Qualitative interviews were carried out with 40 patients in a general practice waiting room during the summer 2017.
- Quantitative survey questionnaires were returned by 43 Infection Prevention Control professionals at an Infection Control conference in September 2017.

The screenshot shows a patient information leaflet titled 'Treating Your Infection – Respiratory Tract Infection (RTI)'. It includes a table with columns for 'Your infection', 'Most are better by', and 'The time difference antibiotics make to the duration of your illness'. The third column is highlighted in red. Below the table are sections for 'How to treat yourself better for these infections, now and next time' and 'When should you get help?'. At the bottom, there are checkboxes for 'Back-up antibiotic prescription to be collected after' and 'days only if you are not starting to feel a little better or you feel worse'.

Figure 1. TARGET TYI-RTI leaflet with additional column on 'the time difference antibiotics make to the duration of your illness' highlighted in a red box.

GENERAL PUBLIC RESULTS

A third of patients (34%) understood the new column's message correctly: antibiotics only reduce the infection by a few hours and therefore antibiotics are not appropriate for this infection

- "Antibiotics won't make much difference so you don't need them" (Participant 10)
- "It's hardly worth taking antibiotics as you are going to get better anyway." (Participant 5)
- "Antibiotics do not make a lot of difference. Only 24 hours over 3 weeks it's not worth it" (Participant 20)

A quarter of patients (26%) understood the wording but misinterpreted the meaning: perceived antibiotics to be worth taking for these infections

- "Infections can last longer if you don't have antibiotics" (Participant 7)
- "How much quicker you will get better if the doctor gives you antibiotics" (Participant 29)
- "I don't like the wording it's confusing but I think it means how much antibiotics will help you" (Participant 24)

Most patients (40%) did not understand the new column on the "time difference antibiotics make to the duration of your illness" at all

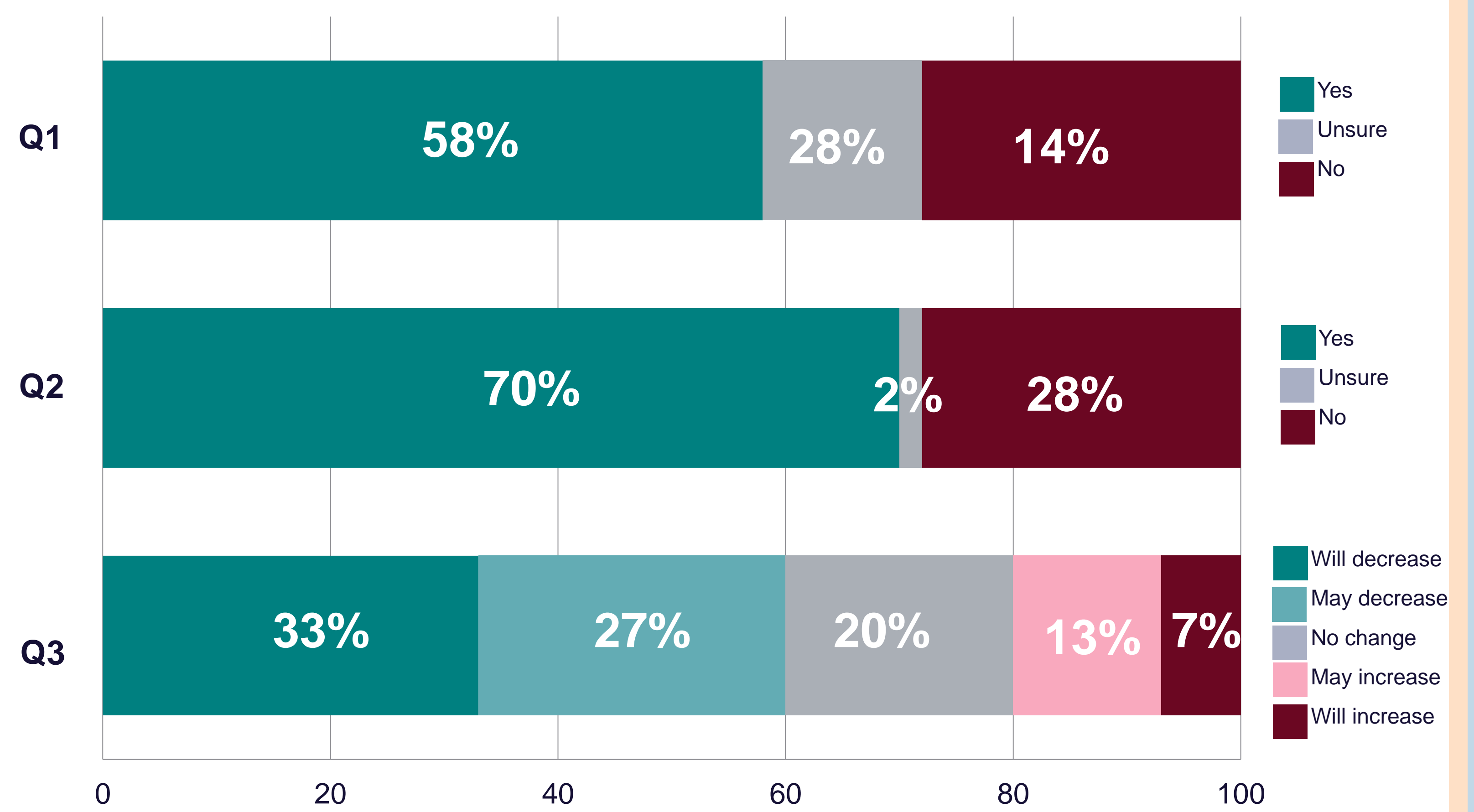
- "How quickly you will notice a difference in your illness" (Participant 15)
- "How long antibiotics take to work." (Participant 23)
- "It tells you that antibiotics do not work until 8-12 hours after taking them." (Participant 8)

DISCUSSION

- Sharing information with patients on the time difference antibiotics make to the duration of an RTI is important to assist with:
 - Patient education around antibiotics and illness duration
 - Patient understanding about antibiotic use
 - Patient expectations on appropriate treatments for common RTIs
 - Patient antibiotic behaviour now and in the future
- However, the public who misinterpreted (26%) or misunderstood (40%) the information on **'the time difference antibiotics make to the duration of your illness'** may take antibiotics for a common RTI as any benefit may be seen as worthwhile. Therefore it is important to communicate information around illness duration and antibiotics to the public in a manner that the public understand.
- It is also important to share information with the public on the harms of taking antibiotics when they are not needed including side effects and antimicrobial resistance.
- This will enable the general public to have all the information required to make an informed decision about their treatment plan.

HEALTH PROFESSIONAL RESULTS

- Do you think information on **'the time difference antibiotics make to the duration of your illness'** should be shared on the leaflet with patients?
- Will the general public understand information around **'the time difference antibiotics make to the duration of your illness'**?
- What effect do you think the information on **'the time difference antibiotics make to the duration of your illness'** could have on patient demand for antibiotics?



CONCLUSION

Sharing information on the time difference antibiotics make to the duration of your RTI may assist in reducing inappropriate antibiotic use and improving patient antibiotic behaviour by enabling patients to make an informed decision about their treatment plan, now and in the future.

Although the health professionals felt that the column should be added, the information provided in a stand alone leaflet is not currently understood by many patients.

The title **'the time difference antibiotics make to the duration of your illness'** will be modified and re-worded following feedback and then re-tested with the general public and health professionals.

Further research with prescribing clinicians is required to understand how the information would be disseminated to the patient before deciding on whether this informed should be included in the TYI-RTI leaflet.

IMPLICATIONS

A larger service evaluation across 4 CCG's will be conducted. This study will include further qualitative work with the general public and General Practitioners/Nurse Prescribers to explore public understanding about RTI illness durations and treatment expectations and how this information should be shared with patients.

ACKNOWLEDGEMENTS

Thanks to staff in the Primary Care Unit, Public Health England. Further thanks to those health professionals and patients involved in the study. This work was supported by Public Health England.

For more information please contact:

Charlotte Eley
Research Project Support Officer
Primary Care Unit, Public Health England
Charlotte.Eley@phe.gov.uk

