Inappropriate Prescribing for Upper Respiratory Tract Infections (URTI) in Children in Primary Care.

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What's the problem?

Recent studies suggest that 75% of antibiotics prescribed for children with an URTI in primary care, are not necessary (1).

To investigate if this was true at our inner city practice, we identified all children (<age 16) over a six month period who had been coded as presenting with a sore throat or ear pain.

For ear pain 89% of patients were given antibiotics, yet only 38% met NICE guidance for requiring antibiotics.

For sore throat 46% of patients received antibiotics, whilst only 34% met NICE criteria for antibiotics.

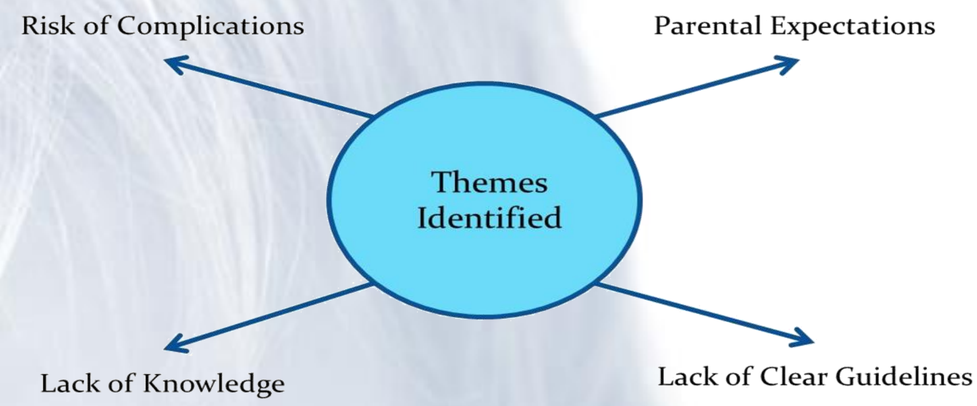
Why is this a problem?

URTIs are common, are predominately viral and there is increasing evidence to suggest that antimicrobial resistance is a result of overprescribing of antibiotics (2).

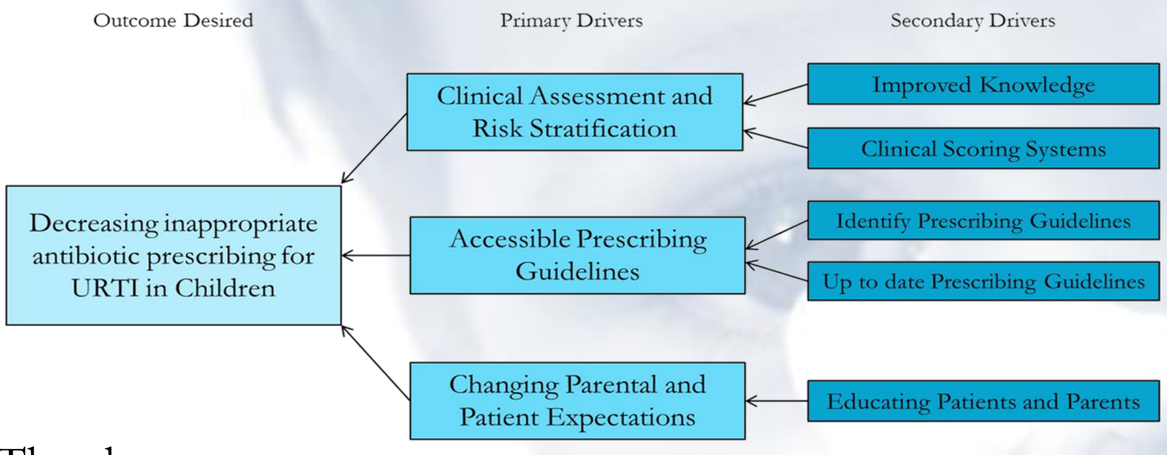
Despite this, antibiotic prescribing to this group has increased by 10% in the last 20 years (3).

Analysing the system

Discussion with clinicians identified key themes contributing to inappropriate antibiotic prescribing.



Aim: To reduce inappropriate antibiotic prescribing for sore throat and ear pain in under 16's by 50% by March 2014.

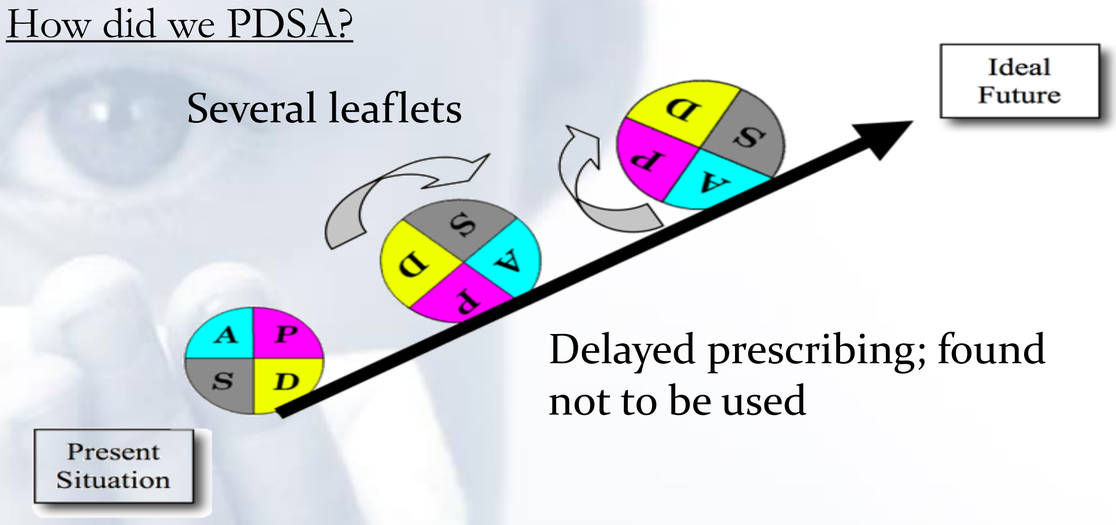


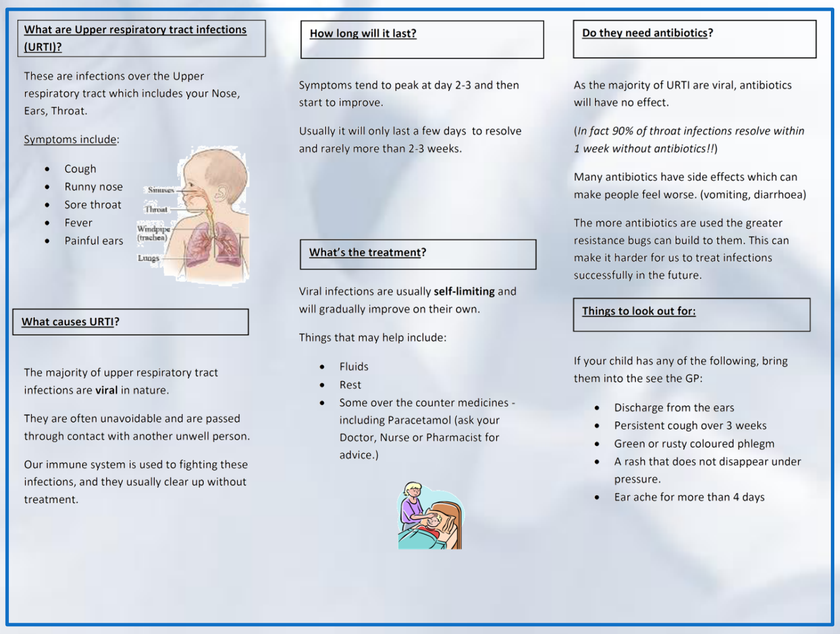
The change..

To reduce the number of incorrectly prescribed antibodies in this group, we implemented four approaches:

1. Firstly, a practice meeting was held to discuss the initial data and the evidence base for antibiotic prescribing.
2. A clear set of guidance was produced based on the latest NICE guidance and HPA information and distributed in the practice
3. To help with the concern regarding parental anxiety a parental leaflet on URTI in children was created, explaining what it is and why antibiotics are not always indicated.
4. The use of delayed prescriptions; prescriptions which would be issued but left at reception for later collection.

How did we PDSA?





What are Upper respiratory tract infections (URTI)?

These are infections over the Upper respiratory tract which includes your Nose, Ears, Throat.

Symptoms include:

- Cough
- Runny nose
- Sore throat
- Fever
- Painful ears

What causes URTI?

The majority of upper respiratory tract infections are **viral** in nature.

They are often unavoidable and are passed through contact with another unwell person.

Our immune system is used to fighting these infections, and they usually clear up without treatment.

How long will it last?

Symptoms tend to peak at day 2-3 and then start to improve.

Usually it will only last a few days to resolve and rarely more than 2-3 weeks.

What's the treatment?

Viral infections are usually **self-limiting** and will gradually improve on their own.

Things that may help include:

- Fluids
- Rest
- Some over the counter medicines - including Paracetamol (ask your Doctor, Nurse or Pharmacist for advice.)

Do they need antibiotics?

As the majority of URTI are viral, antibiotics will have no effect.

(*In fact 90% of throat infections resolve within 1 week without antibiotics!!*)

Many antibiotics have side effects which can make people feel worse. (vomiting, diarrhoea)

The more antibiotics are used the greater resistance bugs can build to them. This can make it harder for us to treat infections successfully in the future.

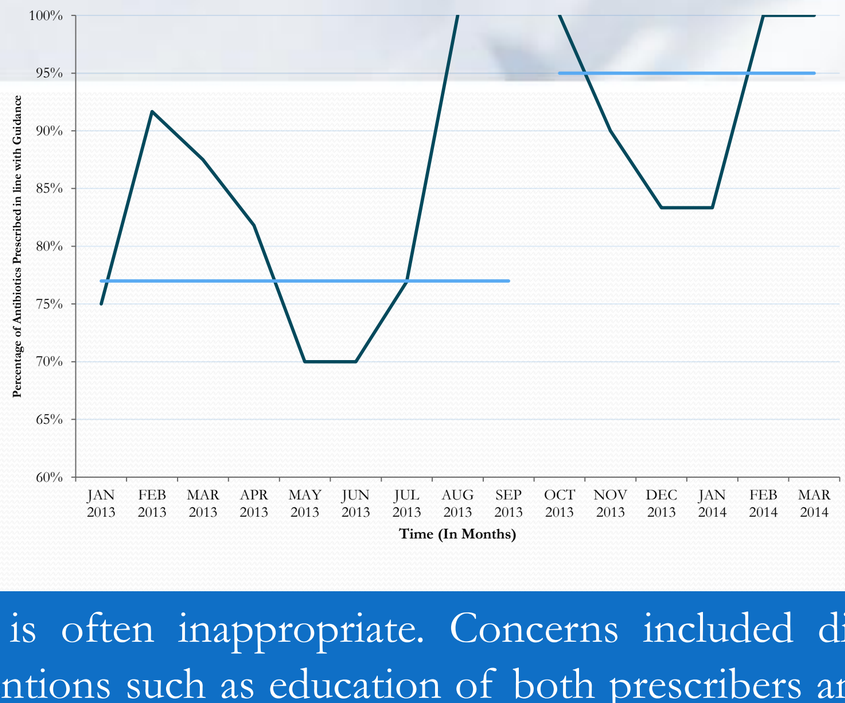
Things to look out for:

If your child has any of the following, bring them into the see the GP:

- Discharge from the ears
- Persistent cough over 3 weeks
- Green or rusty coloured phlegm
- A rash that does not disappear under pressure.
- Ear ache for more than 4 days

Outcomes:

- The interventions implemented were well received by Clinicans in the practice, who found them supportive to their practice.
- Over the 5 months period post intervention, the number of inappropriate antibiotic prescriptions for both 'acute ear pain' and 'sore throat' decreased.
- Inappropriate antibiotic prescribing for 'acute ear pain' fell from 89% incorrect to 30%.
- Inappropriate antibiotic prescribing for 'Sore throat' was initially 11%. After the intervention, this had reduced to 8%.



Key Messages: This study found that antibiotic prescribing in URTI is often inappropriate. Concerns included difficulty in assessment, parental expectation, and fear of complications. Simple interventions such as education of both prescribers and parents, and access to guidelines demonstrated a significant improvement. A further re-audit will be performed in 6 months time.

References:

1.Patricia2; Heneghan, Carl1; Blair, Peter S2; Buckley, David I3; Redmond, Niamh2; Hay,Alastair D2 British Journal of General Practice, Volume 63, Number 612, July 2013 , pp. e445-e454(10)

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3.Reducing antibiotic prescribing for children with respiratory tract infections in primary care: a systematic review. Vodicka, Talley A1; Thompson, Matthew1; Lucas,