

Why do dentists prescribe antibiotics for adults with toothache or infection?

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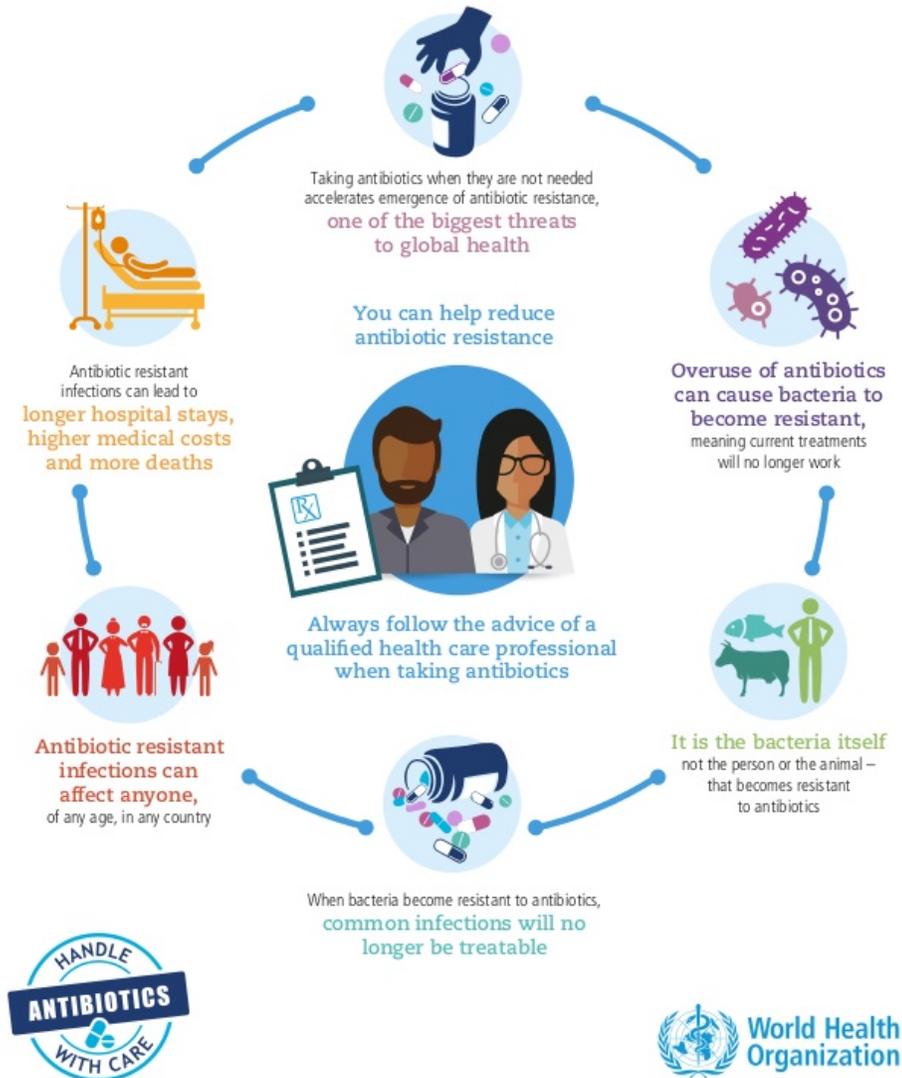
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Misusing and overusing **ANTIBIOTICS** puts us all at risk



WHO IS PRESCRIBING?



General practice



Hospital inpatients



Hospital outpatients



Dental practices



Other community settings

Who is receiving them?



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❖ Who?

❖ Adult patients

❖ What for?

❖ Acute infection

❖ Pain not controlled by analgesics

❖ Where & when?

❖ General dental

❖ Out of hours dental clinics



To identify factors associated with the decision **whether** to prescribe antibiotics to **adult** patients during **urgent** appointments / for **acute** conditions across primary care, including dentistry.

- ❖ Extensive published literature related to general practice
- ❖ Sparse published literature related to dentistry

Results: identified 30 factors

❖ 3 non-modifiable factors

- Practice/clinic characteristics
- Clinician characteristics
- Patient/condition characteristics

	Primary care	Dental care
Patient/condition characteristics	Respiratory tract infections Urinary tract infections	Dental infection Toothache (pulpitis)

Guideline indication: Infection with extraoral swelling or systemic involvement



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NHS

OPEN WIDE AND JUST ASK 'COULD IT BE SEPSIS?'

Sepsis is a life-threatening condition triggered by an infection anywhere in the body – including a dental or throat infection. **It kills 44,000 people a year in the UK, yet can be treated easily if caught early.** So if someone on antibiotics, or who has a fever or flu-like symptoms, becomes very unwell, always ask **'could it be sepsis?'**

ANY ADULT WHO HAS:	ANY CHILD WHO:
S lurred speech or confusion	• Is breathing very fast
E xtrême shivering or muscle pain	• Has a 'fit' or convulsion
P assed no urine in a day	• Looks mottled, bluish or pale
S evere breathlessness	• Has a rash that does not fade when you press it
I llness so bad they fear they are dying	• Is very lethargic or difficult to wake
S kin mottled or discoloured	• Feels abnormally cold to touch

**MIGHT HAVE SEPSIS:
CALL 999 AND JUST ASK 'COULD IT BE SEPSIS?'**

For symptom cards and information, visit www.sepsistrust.org



But not toothache!



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Patient Influence: I've got toothache; I just need antibiotics!



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Competing demands



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Pharmacy Stamp	Age	Title, Forename, Surname & Address
	D.o.B	
Please don't stamp over age box Number of days' treatment N.B. Ensure dose is stated		NHS Number:
Endorsements		
Signature of Dentist		Date
For dispenser No. of Prescs. on form	Dentist's name and address	
NHS 40827663910 FP10D0608		





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Antibiotic Prescribing for Dental Procedures in Community-Associated *Clostridium difficile* cases, Minnesota, 2009–2015

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Abstract

Background

Clostridium difficile infections (CDIs) are the leading cause of healthcare-associated diarrhea. Two of the most significant risk factors for CDI are antibiotic use and healthcare exposure. Dentists write approximately 10% of all outpatient prescriptions in the USA; however, limited data are available regarding dental prescribing's impact on CDI. We described characteristics of community-associated (CA) CDI cases following antibiotics for dental procedures.



	Both	Primary care	Dental care
Access	✓		
Accountability		✓	
Antibiotic awareness		✓	
Antibiotic beliefs		✓	
Conflict		✓	
Competing demands	✓		
Efficacy of options	✓		
Fear of consequences	✓		
Feeling about decisions	✓		
Financial burden		✓	
Fix the problem	✓		
Guidance-practice gap	✓		
Guidelines	✓		
Habits	✓		
Healthcare context	✓		
Incentives	✓		
Patient influence	✓		
Patient management	✓		
Patient satisfaction	✓		
Peers & colleagues	✓		
Planning & consent	✓		
Procedure possible			✓
Professional role	✓		
Relationship	✓		
Risk perception	✓		
Treatment skills			✓
Workload	✓		

Procedure possible

Belief about whether it is possible to complete a procedure as per guidance during urgent appointment e.g. tooth extraction for an anxious patient

Treatment skills

Skills in provision of some urgent procedures e.g. anaesthetising difficult tooth

Which are relevant during actual urgent appointments?



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❖ Ethnographic study

➤ Method

- Audio-recorded 84 appointments
 - 7 dental practices & 2 out of hours clinics
- Follow-up 18 cases via interviews:
 - patients
 - dentists
 - dental nurses
- Framework analysis using the 30 factors

➤ Results

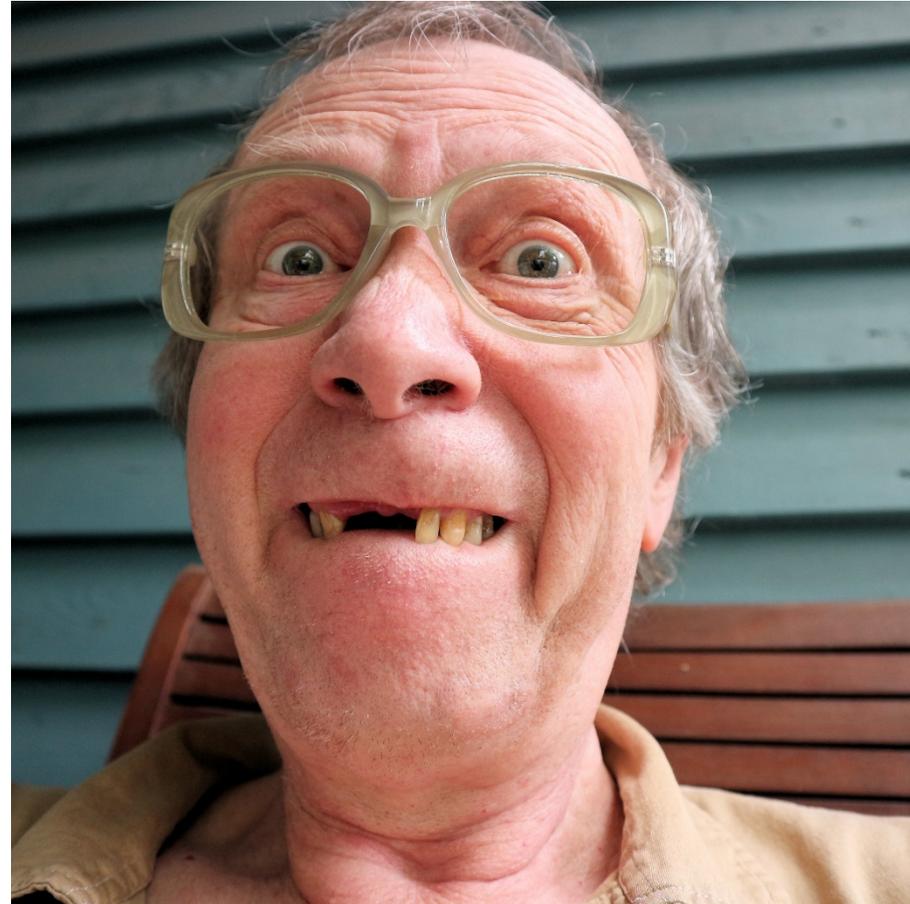
- All 30 factors + another 4
 - **Follow-up feedback**
 - **Lifetime impact**
 - **Patient safety**
 - **Running late**



Lifetime impact



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Contextualised some factors: Patient influence



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**DO I NOT NEED
ANTIBIOTICS?**

Seeking antibiotics or reassurance?

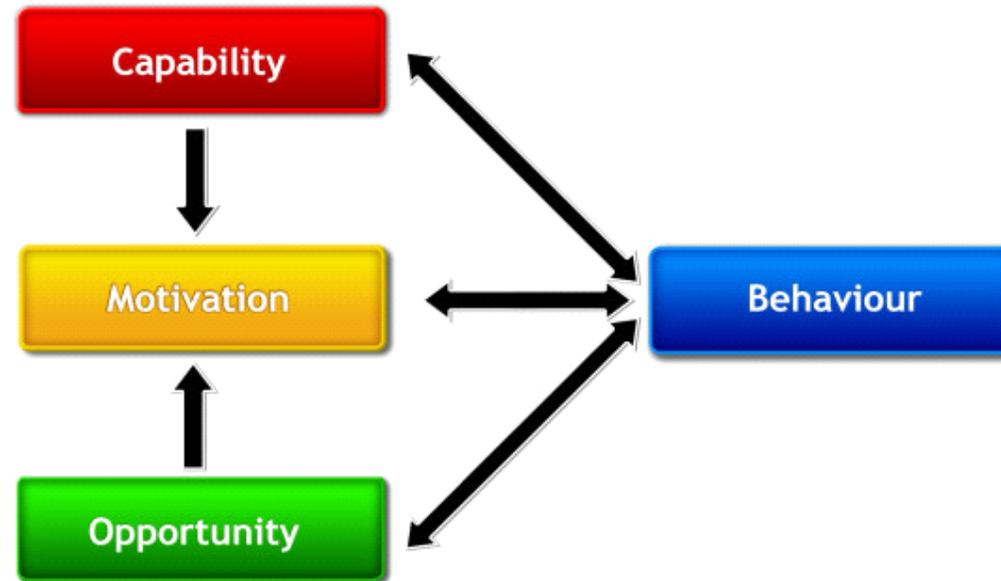


...to 13 factors for an intervention



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- ❖ Patient management
- ❖ Treatment skills
- ❖ Planning & consent
- ❖ Procedure possible
- ❖ Antibiotic beliefs
- ❖ Lifetime impact
- ❖ Fix the problem
- ❖ Relationship
- ❖ Professional role
- ❖ Access
- ❖ Competing demands
- ❖ Patient influence
- ❖ Peers & colleagues



Next step – Intervention Development



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- ❖ Intervention to reduce dental antibiotic prescribing
 - ❖ Evidence-based intervention
 - ❖ Underpinned by behavioural theory
- ❖ **Patient Benefit: Improved patient safety**
 - ❖ Reduced resistant infections
 - ❖ Without increasing adverse events
- ❖ **Pathway to Implementation**
 - ❖ Evolving Dental Antimicrobial Stewardship Toolkit





Thank you for your interest

#keepantibioticsworking

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