Guidelines for Implementing Antibiotic Stewardship in Dental Industry

Clinicians as effective communicators of evidence

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Conflict of interest

• Senior Director, ADA Evidence Synthesis and Translation Research
• Member/close collaborator:
  Cochrane review and methods groups:
  – Oral Health
  – Wounds
  – GRADEing (Applicability and recommendation methods)
  – Patient reported outcomes
• Member of the GRADE working group
• No financial conflict of interest
Objectives

- Describe current trends for antibiotic use in dentistry
- Describe most important challenges preventing the dental community from implementing appropriate antibiotic stewardship
- Highlight current efforts to facilitate the implementation of antibiotic stewardship in dentistry
About the American Dental Association

• Advocates for public health and promotes the art and science of dentistry
• Together with our 163,000+ members, driving dentistry forward for 160 years.

Mission

Empowering the dental profession to achieve optimal health for all.
Antibiotic overprescription

90% of dental visits had gingival manipulation
81% of antibiotic prophylaxis in dentistry was unnecessary
20% of visits had patients with cardiac conditions

- Slide from Suda K. 2019 IADR Annual Conference, Vancouver
Core elements of outpatient antibiotic stewardship

**Commitment:** demonstrated dedication to and accountability for optimizing antibiotic prescribing and patient safety

**Action for policy and practice:** implement at least one policy or practice to improve antibiotic prescribing, assess whether it is working, and modify as needed

**Tracking and reporting:** monitor antibiotic prescribing practices and offer regular feedback to clinicians or have clinicians assess their own antibiotic use

**Education and expertise:** provide educational resources to clinicians and patients on antibiotic prescribing and ensure access to needed expertise on antibiotic prescribing

The need for global guidance on antibiotic stewardship in dentistry

Sanderson S, William D.M. The need for global guidance on antibiotic stewardship in dentistry. Stewardship. AMR Control 2019
Action for policy and practice: implement at least one policy or practice to improve antibiotic prescribing, assess whether it is working, and modify as needed.

Evidence-based clinical practice guideline on the use of antibiotics for the emergency management of symptomatic irreversible pulpitis, symptomatic apical periodontitis, and localized acute apical abscess:

A report from the American Dental Association

November 2019
JADA

Evidence-based clinical practice guideline on the use of antibiotics for the emergency management of dental pain and swelling:

A report from the American Dental Association

2019
Emergency medicine Journal
Key recommendations

- Multidisciplinary expert panel
- Supported by a systematic review of the literature including patient-important outcomes
- Systematic review on patients’ values, preferences, perceptions and expectations
- Algorithms to facilitate the implementation of recommendations
- Accompanying material: "For the patient" page
Clinical pathways for the treatment of immunocompetent adults presenting with dental pain and swelling

*Dental treatment is NOT immediately available

*2019 Evidence-based clinical practice guideline on the use of antibiotics for the emergency management of symptomatic irreversible pulpitis, symptomatic apical periodontitis, and localized acute apical abscess: A report from the American Dental Association

* MANUSCRIPT ON PREPARATION
While in medicine...

Viral infection ≠ Antibiotic
in dentistry...

Dental infection \neq Antibiotic

... almost all are caused by bacteria
**Education and expertise:** provide educational resources to clinicians and patients on antibiotic prescribing and ensure access to needed expertise on antibiotic prescribing

- "Antibiotics don’t cure toothache"
- Adopting specific messaging for dentistry
- Enhancing alternative messages
- Desirable and undesirable consequences clearly defined
- Clinicians and patients partnering to achieve better outcomes
- Better referral system for dental emergencies
- Collaboration with medical specialties

**Implementation of shared decision-making**

**Coordination with other health professionals**
In summary

- Dentists - 10% of total antibiotics prescriptions
- 81% of antibiotic prophylaxis in dentistry (2011-2015) was unnecessary
- Dentists need tools to effectively implement stewardship initiatives in practice
- The ADA is focusing efforts on:
  - Evidence-based clinical practice guidelines
  - Appropriate messaging for patients and clinicians
  - Implementation of shared decision-making
  - Better coordination with other health professionals