MDFORLIVES IN-DEPTH INSIGHT REPORT

Dental Antibiotic Prescribing: What Dentists See Behind the Stewardship Gap

A deeper look at how dentists balance infection evidence, definitive treatment, diagnostic uncertainty, patient expectations, and antimicrobial resistance when deciding whether antibiotics belong in dental care.

Context → Data → Insight → Impact

43	6	8	82.7%
Complete responses	Countries represented	Closed-ended findings	Completion rate

THE CLINICAL QUESTION

What is keeping dental antibiotic prescribing variable even as stewardship awareness increases?

The survey suggests that the remaining variability comes from several forces acting at once: clinical infection risk, access to definitive procedures, patient expectations, clinician prescribing habits, medicolegal concern, and differences in how stewardship guidance is translated into practice.

Awareness of antimicrobial resistance appears to be improving behavior, but not uniformly. The deeper challenge is converting stewardship knowledge into a consistent decision across different care settings and different patient pressures.

The survey shows that the stewardship gap is not driven by one obvious failure point. It appears where clinical urgency, delayed access to definitive care, precautionary habits, patient expectations, medicolegal concern, and variation between clinicians intersect.

> **Countries covered:** United States, United Kingdom, Canada, Italy, France, and Germany. Percentages are reproduced exactly from the source survey. Public-facing charts display percentages only; question bases vary slightly because later items reflect completed responses.

EXECUTIVE SYNTHESIS

Stewardship knowledge is present, but the decision environment remains uneven

The data describe a profession where clinical evidence remains the primary trigger for antibiotics, yet avoidable prescribing can emerge from multiple small pressures around the clinical encounter.

FINDING 01

57.8% say objective evidence of spreading or systemic infection most strongly drives prescribing

Clear infection evidence remains the strongest clinical anchor for antibiotic use.

FINDING 02

55.6% describe stewardship as inconsistent across providers or settings

Awareness of antimicrobial resistance has not produced uniform prescribing behaviour.

FINDING 03

53.3% identify patient expectations as the greatest decision tension

The pressure to provide immediate relief is a major relational driver of prescribing.

FINDING 04

63.6% say diagnostic uncertainty has an extreme or moderate influence

Uncertainty still shapes decisions even when it is rarely named as the primary prescribing trigger.

01 SECTION 01

Clinical infection remains the clearest reason to prescribe

CONTEXT

Dental guidelines distinguish conditions that benefit from definitive dental treatment from those where systemic antibiotics add value because infection is spreading or systemic involvement is present.

This matters because dental antibiotics often sit beside a more definitive procedural solution. The decision is therefore not only whether infection is present, but whether source control is available, how quickly it can happen, and how much risk is acceptable while the patient waits.

WHAT THE DATA SHOWS

57.8% say objective evidence of spreading or systemic infection is the strongest prescribing driver. Concern about progression is next at 22.2%.

THE INSIGHT

The primary trigger is clinically coherent. That means the stewardship gap is less about dentists routinely ignoring infection severity and more about what happens in borderline or operationally constrained situations.

WHY IT MATTERS

Once the infection signal becomes less clear, other pressures such as timing, access, patient expectations, and risk tolerance gain more influence.

02 SECTION 02

Avoidable prescribing is distributed across several everyday scenarios

CONTEXT

Antibiotics can become a bridge when pain is intense, procedural treatment is delayed, or the patient expects a prescription to represent active treatment.

The spread of responses across several avoidable-prescribing scenarios suggests that excess use is generated by multiple small pressures rather than one dominant mistake. Access, pain, precaution, and expectations can all push in the same direction for different reasons.

WHAT THE DATA SHOWS

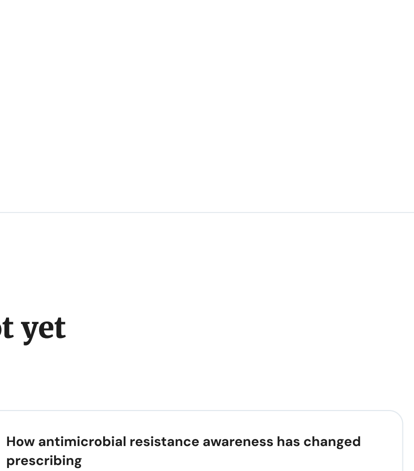
No avoidable-prescribing scenario dominates: irreversible pulpitis 26.7%, delayed definitive care 24.4%, patient expectation 24.4%, and post-procedural precaution 22.2% cluster closely.

THE INSIGHT

The spread suggests that stewardship cannot be reduced to one educational message. Different parts of the dental pathway create their own small reasons to prescribe.

WHY IT MATTERS

Antibiotic use can function as a substitute for time, certainty, or immediate procedure access even when the underlying dental condition remains procedural.



03 SECTION 03

Stewardship awareness has not yet produced uniform practice

CONTEXT

CDC's 2026 dental stewardship framework highlights opportunities to standardize prescribing, document indications, optimize duration, and integrate stewardship into routine dental workflows.

Variation between providers is itself a stewardship signal. When principles are understood but applied inconsistently, the gap is more likely to sit in interpretation, workflow, local norms, or accountability than in basic awareness alone.

WHAT THE DATA SHOWS

55.6% describe stewardship as inconsistent across providers or settings. Separately, 67.5% see substantial or some improvement in prescribing as resistance awareness grows.

THE INSIGHT

These findings are not contradictory. They describe a moving system where average behavior may be improving while variability between clinicians remains high.

WHY IT MATTERS

The next phase of stewardship may be defined by consistency rather than basic awareness.

04 SECTION 04

Patient expectation is the strongest relational pressure

CONTEXT

Pain, swelling, and fear create a strong expectation for immediate action. Antibiotics are familiar to patients even when the underlying condition is better addressed procedurally.

Patient expectation becomes especially powerful when antibiotics are perceived as a tangible response to pain or urgency. The survey suggests that the communication task is often to explain why definitive dental treatment, rather than a prescription, is the action that addresses the source of the problem.

WHAT THE DATA SHOWS

53.3% identify managing patient expectations as the greatest tension in antibiotic decision-making. Patient-driven pressure is also selected by 25.6% as a barrier to reducing unnecessary prescribing.

THE INSIGHT

Expectation pressure appears twice in the dataset, suggesting that it is not an isolated consultation issue but a recurring feature of the stewardship pathway.

WHY IT MATTERS

The ability to explain why an antibiotic is not the active treatment may be as relevant to stewardship consistency as knowledge of the guideline itself.

05 SECTION 05

The profession points to education before technology

CONTEXT

Stewardship interventions can include clinician education, patient communication, standardized prescribing workflows, audit and feedback, and clinical decision support.

Awareness of antimicrobial resistance appears to be changing behaviour, but unevenly. The gap between awareness and consistency may reflect how difficult it is to translate a population-level stewardship goal into a decision made under time pressure with an individual patient in pain.

WHAT THE DATA SHOWS

The leading future priorities are improved patient education 34.9%, stewardship education in dental training 32.6%, and more precise evidence-based guidelines 23.3%. Diagnostic support tools receive 2.3%.

THE INSIGHT

Respondents locate the next opportunity in human behavior and shared understanding rather than in a new technology layer.

WHY IT MATTERS

The survey suggests that the hardest remaining stewardship problems are social and operational: how clinicians explain decisions, how habits differ, and how the system responds when definitive treatment is not immediately available.

> **Open-text question:** Respondents were asked what change is most important for improving antibiotic stewardship. Recurring themes included patient education, provider education, clearer and more consistent guidelines, explaining antimicrobial resistance, and normalizing the idea that not every painful dental condition benefits from an antibiotic.

06 SECTION 06

The profession points to education and expectation management as the next lever

CONTEXT

When clinicians are asked what is most likely to improve stewardship, the answers reveal where they think the current gap lives. The leading responses are not new tests or faster technology; they are patient education and professional training.

Looking ahead, respondents place more emphasis on education, clearer guidance, and patient understanding than on new diagnostic technology. That points to a stewardship problem whose next gains may depend as much on behaviour and communication as on information.

WHAT THE DATA SHOWS

34.9% select improved patient education as the most likely improvement, 32.6% greater stewardship education in dental training, and 23.3% more precise evidence-based prescribing guidelines. Faster procedural access and enhanced diagnostic tools receive smaller shares.

THE INSIGHT

The pattern suggests that dentists see stewardship as a social and professional consistency problem. Better prescribing may depend on aligning what clinicians understand, what patients expect, and what local practice makes easy.

WHY IT MATTERS

This also explains why awareness alone has not closed the gap. Knowing that unnecessary antibiotics are harmful is different from having a consultation, workflow, and shared expectation that support a non-antibiotic decision.

PRACTICE PATTERN

What dentists' opinions reveal beneath the stewardship gap

The combined findings suggest that dental antibiotic stewardship is not mainly limited by a lack of awareness. Objective infection evidence remains the strongest prescribing trigger, yet practice still varies because the decision is embedded in pain, access, patient expectation, precaution, and differences in clinician habits.

The hidden reason unnecessary prescribing persists may be that antibiotics can function as a temporary answer to several different problems: delayed definitive care, a patient seeking immediate relief, uncertainty about progression, or a clinician trying to reduce perceived risk. The same prescription can therefore arise from very different pressures.

Stewardship is clinically understood but operationally uneven

Pattern interpretation

Respondents largely recognize infection evidence as the anchor, while still describing inconsistent application across providers and settings.

Patient expectation is a major decision force

Pattern interpretation

The strongest reported tension is not uncertainty alone but the need to manage expectations while limiting unnecessary treatment.

Education is seen as the next consistency tool

Pattern interpretation

The leading future levers are patient education, stewardship training, and clearer evidence-based guidance rather than new technology.

Taken together, the opinions describe a stewardship gap that is behavioural and contextual. The opportunity is not simply to repeat the message about resistance, but to make appropriate prescribing easier to explain, easier to apply consistently, and easier to support across care settings.

CLOSING PERSPECTIVE

The hardest antibiotic decision may be the one that requires explanation rather than a prescription

The dental survey shows a profession that largely understands the stewardship problem but still experiences variation at the point of care. Clear evidence of spreading or systemic infection remains the strongest reason to prescribe, yet avoidable use can arise from several common situations.

What makes the pattern important is that no single pressure explains it. Delayed access to definitive care, irreversible pulpitis without systemic involvement, precautionary prescribing, patient expectations, clinician habits, and medicolegal concern all appear in the decision environment.

Patient expectation stands out because it converts a population-level stewardship issue into a one-to-one communication challenge. A patient in pain may understandably equate a prescription with treatment, while the dentist may be trying to explain that source control or another dental intervention is the more meaningful clinical action.

The survey also suggests that awareness of antimicrobial resistance is improving faster than consistency. That gap is why respondents gravitate toward patient education, stewardship training, and more precise guidance as future levers.

The deeper story is therefore not that dentists need to be told antibiotics matter. It is that stewardship becomes credible when clinical evidence, definitive care, professional norms, and patient expectations point in the same direction.

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EXTERNAL CONTEXT

Selected sources

1. CDC. Antibiotic Stewardship Strategies: Outpatient Dental Settings, 2026.
2. American Dental Association. Evidence-based clinical practice guideline on antibiotic use for urgent dental pain and swelling.

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Real Opinions to Insights. Validated by Data.

This report combines MDForLives survey findings with carefully selected external clinical context. Survey values are presented exactly as reported.

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