

The state of AI in dentistry

October 2026 edition

21 developments from August 2025 to September 2026, each dated and each with its source.

→ The AI reading your X-rays	4
→ UK dental groups adopt AI	3
→ Patients, chatbots and treatment plans	3
→ Regulation, responsibility and risk	6
→ Adoption, money and data	5
→ What to watch next	5

In short

AI in dentistry is mostly used in two places: software that reads your X-rays and marks possible decay or bone loss, and 'scribe' tools that write up the clinical notes. In 2026 the UK's biggest dental groups started using both across their practices, so if you go to a large chain, AI has probably looked at your X-rays. The evidence has not kept up. Most of these products were cleared on the makers' own data. There are almost no independent trials showing that patients end up better off, and a regulator review found no UK studies at all. Patients are bringing ChatGPT-written treatment plans to appointments, and studies find chatbots good at common questions but weaker on specialist ones. UK regulators have said clinicians stay responsible for AI's output but have not yet written dental-specific rules.

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- ➔ The UK's largest dental groups have committed to AI: mydentist chose Overjet for X-ray analysis, Gensmile is rolling out Pearl across its 38 practices and PortmanDentex signed a two-year deal for Heidi's AI scribe.
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- ➔ Most dental imaging AI is cleared by regulators on manufacturer data: a December 2025 review of 29 FDA-cleared products found several with no peer-reviewed publications and no patient-outcome data.
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- ➔ Dentists use AI mainly for X-rays and admin, not for deciding treatment: fewer than 5% of US dentists in an ADA survey use it for treatment recommendations, and 12% of dentists in a three-country poll had tried AI tools and stopped.
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- ➔ General chatbots answer common dental questions reasonably well but are less reliable on specialist and higher-risk topics, and the studies say they should not replace a dentist's advice.
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- ➔ UK regulators say the clinician remains responsible for anything AI produces, but the GDC has not yet issued dental-specific AI guidance, and AI scribes are not checked by any national body.
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- ➔ Vendors promote AI partly as a way to raise 'case acceptance', and the published figures behind those claims come from the companies themselves, not from independent studies.
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The most established dental AI marks possible problems on radiographs, such as decay, bone loss and infection at the root tip. The dentist sees the markings and makes the diagnosis. Regulators keep clearing new tools, but approval mostly rests on the makers' own testing rather than independent trials.

4 Aug 2026

Overjet gets second FDA clearance, this time for AI checking X-ray quality

Overjet's IRIS software was cleared by the US FDA to check X-ray image quality in real time. It flags eight problems, including cone cuts and missed coverage, so a poor image can be retaken while the patient is still in the chair. Overjet reports 98.6% specificity and 92.6% sensitivity on 1,888 images. Its headline also claims a 25% rise in case acceptance, but the release gives no data to support that figure.

Why it matters A blurry or badly angled X-ray can hide problems or create false ones, so quality checks are useful. Treat 'case acceptance' claims as sales language: they measure how often patients agree to treatment, not whether the treatment was needed.

Source: [Healthcare Dive \(Overjet press release\)](#) healthcaredive.com

24 Mar 2026

Orthodontic AI firm CephX gains FDA clearance for 3D scan analysis

Orca Dental AI's CEPHX3D received FDA 510(k) clearance for AI analysis of CBCT (3D) scans. It outlines the jaws, the teeth and the main nerve in the lower jaw (the inferior alveolar nerve). The company says it is now the only orthodontic AI diagnostic support company with FDA clearance for both 2D and 3D imaging. It also announced integrations with DEXIS and Greyfinch software, and says it is used in more than 180 countries.

Why it matters If you are quoted for braces, aligners or implants, AI may have helped measure your scans. Whatever software was used, ask who checked the measurements and the plan.

Source: [CephX](#) cephx.com

19 Dec 2025

Review finds thin independent evidence behind FDA-cleared dental imaging AI

A narrative review in the International Dental Journal identified 29 FDA-cleared dental imaging AI products or modules from 13 companies. The authors found considerable variation in the amount and quality of independent clinical evidence. Several platforms, including Overjet and VideaHealth, had no peer-reviewed publications identified, and nor did most of Pearl's modules. The authors found no patient-outcome data to assess and called prospective, multi-centre trials an urgent priority.

Why it matters Regulatory clearance means a tool met a safety and performance bar. It does not show that patients who had AI-read X-rays end up healthier or avoid unnecessary work.

Source: [International Dental Journal \(via PubMed Central\)](#) [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov)

18 Dec 2025

Pearl's AI cleared by FDA to flag problems on panoramic X-rays

Pearl received FDA 510(k) clearance for its Second Opinion software to flag suspected caries, periapical radiolucencies (signs of infection at the root tip) and impacted wisdom teeth on panoramic radiographs. The company says it is available to users in the US and internationally, and that the clearance was supported by a standalone study and a multi-reader, multi-case study. The release gives no performance figures.

Why it matters Panoramic X-rays are the large whole-mouth images often taken at a new-patient check-up. AI markings on these are a prompt for the dentist to look again, not a diagnosis.

Source: [Pearl](#) hellopearl.com

In 2026 the large UK dental groups moved from trials to rolling AI out across their practices. Two kinds of tool lead: X-ray analysis, which is often shown to patients in the chair, and scribes that draft the clinical notes. None of these deals has published independent outcome data.

4 Jun 2026

Gensmile rolls out Pearl X-ray AI across its 38 UK practices

Gensmile, a privately held group with 38 UK practices, is making Pearl's radiograph AI standard across the group. The tool flags possible caries, bone loss, failing restorations and calculus. Clinical director Dr Asad Rahman, who has used it for three years, says every team member, from reception to specialists, will be expected to explain Pearl findings to patients. The article gives no outcome data.

Why it matters You may be shown coloured markings on your X-rays when a plan is explained. Ask which findings the dentist confirmed by examining you and which ones the software flagged.

Source: [Dentistry.co.uk](https://dentistry.co.uk)

8 Apr 2026

PortmanDentex signs two-year deal for Heidi AI scribe across UK and Ireland

PortmanDentex, which describes itself as the largest privately focused dental group, signed a two-year partnership with Heidi Health. The deal deploys Heidi's clinical scribe and other AI tools across its UK and Ireland practices after a pilot late in 2025. About 60 new clinicians are going live each month. The total number of practices was not disclosed.

Why it matters Your consultation may be recorded and summarised by AI. You can ask whether a scribe is in use and check that your notes and treatment plan match what was actually discussed.

Source: [Heidi Health](https://heidihealth.com) heidihealth.com

10 Feb 2026

mydentist picks Overjet for what it calls UK's largest dental AI rollout

mydentist, the UK's largest dental support organisation, selected Overjet's AI to analyse radiographs across its practices. The software flags possible caries, calculus, bone levels and periapical radiolucencies, and it integrates with mydentist's imaging and practice systems. The companies say clinicians keep all diagnostic decisions. The number of practices was not stated.

Why it matters mydentist runs many NHS practices, so this affects NHS patients as well as private ones. A treatment plan from a mydentist practice may now draw on AI-marked X-rays.

Source: Overjet overjet.com

Patients are using ChatGPT and similar tools to research dental treatment, and dentists are noticing. Studies of chatbot answers are mostly small and score the answers against expert opinion; none tests whether patients who use them make better decisions. In these studies the chatbots handle common questions well and do worse on niche or higher-risk topics.

11 May 2026

Six chatbots tested on oral health advice; AI judges unreliable

A study in the International Dental Journal tested six large language models, including GPT-5 and Gemini 3, on nine patient questions based on FDI World Dental Federation material. DeepSeek-V3 and Doubao-1.8-Pro scored strongest, and GPT-5 and Gemini 3 were good but more variable. When other AIs were used to grade the answers, they agreed only 'extremely poorly' with human clinicians and missed clinically important omissions, especially in preventive advice and for higher-risk groups.

Why it matters Chatbots are fine for general background. Do not ask one chatbot to check another's answer: the study found AI graders missed important gaps.

Source: [Dental Tribune International](https://www.dental-tribune.com) dental-tribune.com

2 Apr 2026

UK clinician now sees AI-generated treatment plans from patients every week

Dr Bethany Rossington told Dentistry.co.uk that six months earlier she had never seen a patient arrive with an AI-generated treatment plan, and now it happens weekly. She warned that AI can draw on outdated sources and weigh risks poorly for the individual patient. She linked the trend to limited NHS dental access. The GDC said that 'the use of AI tools cannot detract from' clinicians' professional responsibility.

Why it matters Bringing your AI research to an appointment is now common. It works best as a list of questions for the dentist rather than an alternative plan.

Source: [Dentistry.co.uk](https://www.dentistry.co.uk)

22 Oct 2025

Chatbots score unevenly on root canal patient questions

A study in the Journal of Clinical Medicine scored DeepSeek V3, GPT-5 and Gemini 2.5 Flash on 37 patient FAQs about root canal treatment. On a five-point scale, DeepSeek V3 averaged 4.81 for accuracy, GPT-5 4.00 and Gemini 2.5 Flash 3.83. The authors note the study's limits, including only two raters and English-only questions, and say expert clinician oversight remains essential.

Why it matters Different chatbots can give answers of different quality to the same question. Comparing two of them, and checking against NHS or professional-body sources, is sensible before relying on either.

Source: [Journal of Clinical Medicine \(via PubMed Central\)](#) [pmc.ncbi.nlm.nih.gov](https://pubmed.ncbi.nlm.nih.gov)

The UK has no AI-specific rulebook for dentistry yet. Regulators have made one thing clear: the dentist stays responsible for whatever an AI tool produces. Scribes that only take notes fall outside medical device regulation, and patient groups are already reporting errors.

17 Sep 2026

GDC joins other UK health regulators to draw up AI principles

The General Dental Council joined other UK health and care regulators, including those covering medicine and nursing, in pledging to produce high-level principles for regulating AI use in healthcare. The aims include a consistent approach and clearer expectations for professionals, particularly about telling the public what role AI plays in their care. No timetable was given.

Why it matters This could eventually give you a right to be told when AI has shaped your diagnosis or plan. That is not yet a formal requirement.

Source: [Dentistry.co.uk](https://dentistry.co.uk)

9 Sep 2026

Dental Protection asks GDC for clear rules on dentists' use of AI

Dental Protection, an indemnity organisation, used its response to the GDC's consultation on a new professionalism framework to ask for guidance on AI. It wants the guidance to cover professional accountability, independent judgement, scrutiny of AI-generated information and understanding of AI's limitations. It said open-ended expectations could create uncertainty for dental professionals.

Why it matters Even the organisations that defend dentists say the current rules are unclear. A dentist using AI should still be able to explain the reasoning behind your plan in their own words.

Source: [GDPUK](https://gdpuk.com) gdpuk.com

31 Aug 2026

Healthwatch reports patients catching AI scribe errors in NHS records

Healthwatch England said ambient AI scribes are recording medicines and diagnoses incorrectly and that patients, not clinicians, often catch the errors. Examples include a drug swapped for a similarly named one and a letter that left out a prescription instruction. The report notes that 27 scribe tools are in use across English general practice and hospitals, and that no national body checks they work. The examples are from general NHS care, not dentistry specifically.

Why it matters The same kind of scribe is being rolled out in dental practices. Ask for a copy of your treatment plan and notes and check them.

Source: [Resultsense](https://resultsense.com) resultsense.com

2 Aug 2026

MHRA rules AI scribes that only take notes are not medical devices

The MHRA, working with NHS England, said AI tools used only for transcription, consultation summaries, draft referral letters or suggested clinical codes for clinician review are not medical devices under current law. Tools that support diagnosis or treatment, or act without clinician review, are regulated as devices. Dentistry.co.uk reminded dental teams that they must verify AI output before it is used in patient care.

Why it matters Note-taking AI used by your dentist is not tested as a medical device. The X-ray analysis tools, which do support diagnosis, are regulated.

Source: [Dentistry.co.uk](https://www.dentistry.co.uk)

24 Jul 2026

US judge dismisses claim that dental group let AI monitor patient calls

A federal judge in Illinois dismissed a proposed class action against Heartland Dental, a large US dental support organisation. The suit alleged that RingCentral's AI listened to and analysed patient phone calls without patients' knowledge, and used them to train its models. Judge Lindsay Jenkins found that an exception in the Federal Wiretap Act shielded RingCentral and, in turn, Heartland.

Why it matters AI may be listening on the practice phone line as well as in the surgery. US law did not stop it in this case. UK data protection law is different, and you can ask a practice how call recordings are used.

Source: [DrBicuspid](https://drbicuspid.com) drbicuspid.com

12 Aug 2025

GDC-commissioned review finds no UK studies of AI in dental services

The GDC published a rapid evidence assessment by Peninsula Dental School at the University of Plymouth. It covered 45 studies from 12 countries, mostly China (18) and the US (13), and none from the UK. It found benefits in accuracy and remote care, but risks including high costs, patient anxiety and the need for clinical oversight. It concluded that 'real-world implementation of AI in dental services remains limited'.

Why it matters There is no UK evidence yet on how dental AI performs for UK patients. Claims made in UK practices rely on overseas or vendor data.

Source: [General Dental Council](https://www.gdc-uk.org) gdc-uk.org

Surveys show dentists using AI mostly for X-rays and paperwork and avoiding it for treatment decisions. Investment is strong, and vendors are starting to use the data they collect to make public claims about oral health. Those claims deserve the same scrutiny as their product claims.

10 Aug 2026

Pearl claims US untreated decay is 4.5 times official estimates

Pearl published an 'Oral Health Index' built from radiographs covering over 26 million dental visits and about 15 million adults between April 2024 and March 2026. It claims untreated caries is at least 4.5 times the rate in the CDC's NHANES survey. The data comes only from people who visited a dentist. It uses different methods from the national survey and has not been independently validated.

Why it matters A finding that AI sees far more decay than government surveys could mean earlier detection or could mean over-calling. Until that is settled, a plan built on many small AI-flagged lesions is worth a second opinion.

Source: [Dental Tribune International](https://www.dental-tribune.com) dental-tribune.com

1 Jul 2026

ADA survey: 43% of US dentists use AI, under 5% for treatment advice

The American Dental Association's Health Policy Institute found 43.3% of responding US dentists use AI for at least one task. 22.8% use it for imaging and diagnostics, and fewer than 5% use it for treatment recommendations. 82.6% do not plan to use AI for treatment recommendations, citing concerns about errors such as overtreatment and misdiagnosis.

Why it matters Most dentists do not trust AI to decide treatment. If a treatment plan seems to have been generated by software, it is reasonable to ask the dentist to explain the reasoning themselves.

Source: [American Dental Association Health Policy Institute](https://ada.org) ada.org

15 Jun 2026

Smile Brands begins rolling Pearl AI out across about 600 US offices

US dental group Smile Brands, which supports about 600 locations across 80-plus brands, selected Pearl after a multi-vendor evaluation and began rollout. The companies say a pilot improved how clinicians presented diagnoses and increased same-day treatment acceptance. They give no figures.

Why it matters Vendors and dental groups openly pitch AI as a way to get patients to agree to treatment on the day. You can take your plan away and think it over before agreeing.

Source: [Pearl](https://hellopearl.com) hellopearl.com

1 Jun 2026

Poll: 32% of dentists use AI tools, 12% tried them and stopped

Dental Reviewed surveyed 300 dentists in the US (180), UK (60) and Canada (60) between February and April 2026. 32% use at least one AI tool, 82% of them for radiograph analysis, and 52% of users treat it as a second opinion. 12% had tried AI and stopped, citing cost (28%), poor integration (22%) and accuracy concerns (18%). 44% of users reported higher case acceptance.

Why it matters The UK sample is only 60 dentists, so treat the UK picture as indicative. Some dentists dropped AI over accuracy concerns.

Source: [GDPUK](https://gdpuk.com) gdpuk.com

10 Feb 2026

DentalMonitoring raises \$100m for AI remote orthodontic monitoring

Paris-based DentalMonitoring, whose AI lets orthodontists track treatment progress from patients' smartphone scans, raised \$100 million in a round led by Lazard Elaia Capital and ISALT. The company says it reached operating profit in 2025 and serves more than 2 million patients. It plans to expand in Europe, the US, Australia and Japan and enter new markets.

Why it matters If you are offered aligners or braces with fewer in-person visits, AI monitoring of your phone photos may be part of the package. Ask how often a clinician will actually see you in person.

Source: [Orthodontic Products](https://orthodonticproducts.com) [orthodonticproductsonline.com](https://orthodonticproducts.com)

What to watch next

↑ What the GDC's new professionalism framework says about AI

The GDC has consulted on replacing its Standards for the Dental Team with a new professionalism framework, and Dental Protection has asked it to cover AI explicitly. Watch whether the final version says anything about telling patients when AI has shaped a diagnosis or plan. If it does, that would be the first UK dental rule of its kind.

↑ The cross-regulator AI principles

The GDC and other UK health regulators have committed to shared high-level principles on AI but gave no date. The main question is whether disclosure to patients becomes an expectation or stays optional.

↑ Independent evidence for AI-read X-rays

Reviews keep finding that the evidence behind dental imaging AI comes mostly from manufacturers, with no patient-outcome data and no UK studies. Watch for independent, multi-centre results showing whether AI-assisted diagnosis leads to better care or more fillings, and whether any come from UK practices now using these tools at scale.

↑ Oversight of AI scribes

AI note-takers are spreading through dental groups, but under the MHRA's position they are not regulated as medical devices, and Healthwatch has documented errors in NHS records. Watch whether NHS England, the MHRA or the GDC adds any checks. Until then, patients checking their own records is the main safeguard.

↑ Case acceptance versus overtreatment

Vendors and dental groups present higher treatment acceptance as a benefit, while most dentists in the ADA survey cite overtreatment as a reason not to use AI for treatment advice. No published study yet shows whether AI-flagged treatment is more or less necessary than treatment planned without AI. Until one does, it is sensible to get a second opinion on a large plan based on AI-marked X-rays.

How this report was made

Every development here was found in a public source dated from August 2025 to September 2026: trade press, regulators, journals and company announcements. Each one names its source, so you can read the original.

All 21 source links were checked on 12 Oct 2026; one of those sites does not allow automated checking, so that link was not opened by the check. Nothing here is advice; it is a record of what happened.

The next edition, and the guides behind this one, are at dentistsai.co.uk/report/