Supplementary Materials

YOLO-based computer vision in oral and maxillofacial surgical care: applications and clinical translation

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Supplementary Table 1. Database search strategies and execution records

Source and search	Scope	Exported records	Execution date
PubMed A	Oral, dental, craniofacial and head-and-neck terms	450	2-Sep-26
PubMed B	Surgical instruments, procedural imaging and tracking	206	2-Sep-26
Web of Science A	Oral, dental, craniofacial and head-and-neck terms	644	2-Sep-26
Web of Science B	Surgical instruments, procedural imaging and tracking	369	2-Sep-26
Scopus	Broad dental/oral and imaging search; Medicine or Dentistry subject-area filter	1,052	2-Sep-26
Total	Five exports across three databases	2,721	2-Sep-26

Database limits and dates. All three core databases were searched and results exported on 2 September 2026 (author-confirmed). PubMed A/B applied a publication-date filter of 1 January 2015–2 September 2026. Web of Science A/B used DOP=2015-01-01/2026-09-02 as recorded in the original strategy. Scopus used PUBYEAR > 2014 AND PUBYEAR < 2027, followed by the on-screen Subject Area filter retaining Medicine or Dentistry. In Scopus, the year limit was broader than the month/day cutoff; records were identified from the export created on 2 September 2026.

Supplementary searching. Google Scholar searching and citation tracking were

exploratory supplements to the three core databases. An archived set of BibTeX snippets was inspected, but it is not a complete or systematically enumerated Google Scholar search result; consequently, no Google Scholar hit count or additional inclusion/exclusion total is presented. These supplemental records were not added to the 2,721 core-database retrievals.

Full search expressions

PubMed A

((yolo*[Title/Abstract] OR "you only look once"[Title/Abstract]) AND ("Dentistry"[MeSH Terms] OR "Oral Surgical Procedures"[MeSH Terms] OR "Surgery, Oral"[MeSH Terms] OR "Radiography, Dental"[MeSH Terms] OR "Jaw Diseases"[MeSH Terms] OR dent*[Title/Abstract] OR oral[Title/Abstract] OR maxillofac*[Title/Abstract] OR craniofac*[Title/Abstract] OR dentofac*[Title/Abstract] OR stomatolog*[Title/Abstract] OR orthodont*[Title/Abstract] OR cephalometr*[Title/Abstract] OR mandib*[Title/Abstract] OR maxill*[Title/Abstract] OR (jaw[Title/Abstract] OR jaws[Title/Abstract] OR jawbone*[Title/Abstract]) OR tooth[Title/Abstract] OR teeth[Title/Abstract] OR molar*[Title/Abstract] OR odontogenic[Title/Abstract] OR gingiv*[Title/Abstract] OR periodont*[Title/Abstract] OR endodont*[Title/Abstract] OR intraoral[Title/Abstract] OR periapical[Title/Abstract] OR temporomandibular[Title/Abstract] OR alveolar[Title/Abstract] OR "cone beam"[Title/Abstract] OR CBCT[Title/Abstract] OR "panoramic radiograph*"[Title/Abstract] OR "cleft lip"[Title/Abstract] OR "cleft palate"[Title/Abstract] OR "head and neck"[Title/Abstract] OR "dental implant*"[Title/Abstract])) AND ("2015/01/01"[Date - Publication] : "2026/09/02"[Date - Publication])

PubMed B

((yolo*[Title/Abstract] OR "you only look once"[Title/Abstract]) AND ("surgical instrument*"[Title/Abstract] OR "surgical tool*"[Title/Abstract] OR "instrument tracking"[Title/Abstract] OR "tool tracking"[Title/Abstract] OR "surgical

video*"[Title/Abstract] OR "operative field"[Title/Abstract] OR "surgical scene"[Title/Abstract] OR "robotic surg*"[Title/Abstract] OR laparoscop*[Title/Abstract] OR endoscop*[Title/Abstract] OR intraoperativ*[Title/Abstract] OR "minimally invasive surg*"[Title/Abstract]) AND (detect*[Title/Abstract] OR track*[Title/Abstract] OR recogni*[Title/Abstract] OR identif*[Title/Abstract] OR segment*[Title/Abstract] OR occlu*[Title/Abstract] OR orient*[Title/Abstract] OR "instrument tip*"[Title/Abstract] OR "object detection"[Title/Abstract])) AND ("2015/01/01"[Date - Publication] : "2026/09/02"[Date - Publication])

Web of Science A

(TS=(YOLO* OR "you only look once") AND TS=(dent* OR oral OR maxillofac* OR craniofac* OR dentofac* OR stomatolog* OR orthodont* OR cephalometr* OR mandib* OR maxill* OR jaw* OR tooth OR teeth OR molar* OR odontogenic OR gingiv* OR periodont* OR endodont* OR intraoral OR periapical OR temporomandibular OR alveolar OR "cone beam" OR CBCT OR "panoramic radiograph*" OR "cleft lip" OR "cleft palate" OR "head and neck" OR "dental implant*")) AND DOP=2015-01-01/2026-09-02

Web of Science B

(TS=(YOLO* OR "you only look once") AND TS=("surgical instrument*" OR "surgical tool*" OR "instrument tracking" OR "tool tracking" OR "surgical video*" OR "operative field" OR "surgical scene" OR "robotic surg*" OR laparoscop* OR endoscop* OR intraoperativ* OR "minimally invasive surg*") AND TS=(detect* OR track* OR recogni* OR identif* OR segment* OR occlu* OR orient* OR "instrument tip*" OR "object detection")) AND DOP=2015-01-01/2026-09-02

Scopus

TITLE-ABS-KEY(

("You Only Look Once" OR YOLO*)

AND

(

dental OR dentistry OR dentition OR tooth OR teeth OR odont*

OR oral OR maxillofacial OR "maxillo-facial" OR craniofacial

OR jaw* OR mandib* OR maxill*

OR periodont* OR endodont* OR orthodont* OR cephalometr*

OR implant* OR periimplant* OR "peri-implant" OR "peri-implantitis"

OR radiograph* OR panoramic OR intraoral

OR "x-ray" OR "x ray"

OR "cone beam computed tomography"

OR "cone-beam computed tomography"

OR CBCT

OR "computed tomography"

OR photograph* OR ultrasonograph* OR ultrasound

)

)

AND PUBYEAR > 2014

AND PUBYEAR < 2027

On-screen subject-area refinement: Following the initial search, the results were refined using the Scopus Subject Area filter. Records assigned to either Medicine or Dentistry were retained using the “Limit to” function.

Export counts and deduplication. The exported records comprise 656 PubMed records (450 + 206), 1,013 Web of Science records (644 + 369), and 1,052 Scopus records, totaling 2,721. Independent export-level reconciliation by DOI and title, accounting for two identified DOI transcription discrepancies in the Web of Science export, yields 1,750 unique records and 971 duplicate appearances. Entries with matching titles but distinct legitimate DOIs were retained as separate works.