

**Appendix.** Classification of the used search strategy by the electronic database source

Database	Search strategy
PubMed	Search: (((microimplant assisted rapid palatal expan*[Title/Abstract] OR microimplant assisted palatal expan*[Title/Abstract] OR microimplant assisted rapid maxillary expan*[Title/Abstract] OR microimplant assisted maxillary expan*[Title/Abstract] OR mini implant assisted rapid palatal expan*[Title/Abstract] OR mini implant assisted rapid maxillary expan*[Title/Abstract] OR mini implant assisted palatal expan*[Title/Abstract] OR mini implant assisted maxillary expan*[Title/Abstract] OR mini implant maxillary expan*[Title/Abstract] OR miniscrew assisted rapid palatal expan*[Title/Abstract] OR miniscrew assisted palatal expan*[Title/Abstract] OR miniscrew assisted rapid maxillary expan*[Title/Abstract] OR miniscrew assisted maxillary expan*[Title/Abstract] OR microscrew assisted rapid palatal expan*[Title/Abstract] OR microscrew assisted rapid maxillary expan*[Title/Abstract] OR microscrew assisted palatal expan*[Title/Abstract] OR microscrew assisted maxillary expan*[Title/Abstract] OR Bone anchored rapid palatal expan*[Title/Abstract] OR Bone anchored rapid maxillary expan*[Title/Abstract] OR Bone-anchored hybrid Hyrax expan*[Title/Abstract] OR hybrid rapid maxillary expan*[Title/Abstract] OR miniscrew supported hybrid hyrax[Title/Abstract] OR Hybrid Hyrax expan*[Title/Abstract] OR maxillary skeletal expan*[Title/Abstract] OR Tooth bone borne rapid maxillary expan*[Title/Abstract] OR Tooth[Title/Abstract] AND bone borne expan*[Title/Abstract] OR Tooth bone borne RME[Title/Abstract] OR Tooth bone borne RPE[Title/Abstract] OR Surgically assisted rapid palatal expan*[Title/Abstract] OR SARPE[Title/Abstract] OR surgically assisted rapid maxillary expan*[Title/Abstract] OR SARME[Title/Abstract] OR Surgically Assisted Rapid Palatomaxillary Expan*[Title/Abstract] OR MARPE[Title/Abstract] OR MSE[Title/Abstract] OR MARME[Title/Abstract])) AND (CBCT[Title/Abstract] OR Cone Beam CT[Title/Abstract] OR Cone beam computed tomography[Title/Abstract])) AND (Expansion[Title/Abstract])) AND (Maxilla[Title/Abstract] OR Maxillary[Title/Abstract])
Embase	(('microimplant assisted rapid palatal expan*':ab,ti OR 'microimplant assisted palatal expan*':ab,ti OR 'microimplant assisted rapid maxillary expan*':ab,ti OR 'microimplant assisted maxillary expan*':ab,ti OR 'mini implant assisted rapid palatal expan*':ab,ti OR 'mini implant assisted palatal expan*':ab,ti OR 'mini implant assisted rapid maxillary expan*':ab,ti OR 'mini implant assisted maxillary expan*':ab,ti OR 'mini implant maxillary expan*':ab,ti OR 'miniscrew assisted rapid palatal expan*':ab,ti OR 'miniscrew assisted palatal expan*':ab,ti OR 'miniscrew assisted rapid maxillary expan*':ab,ti OR 'miniscrew assisted maxillary expan*':ab,ti OR 'microscrew assisted rapid palatal expan*':ab,ti OR 'microscrew assisted palatal expan*':ab,ti OR 'microscrew assisted rapid maxillary expan*':ab,ti OR 'microscrew assisted maxillary expan*':ab,ti OR 'bone anchored rapid palatal expan*':ab,ti OR 'bone anchored rapid maxillary expan*':ab,ti OR 'bone anchored hybrid hyrax expan*':ab,ti OR 'hybrid rapid maxillary expan*':ab,ti OR 'miniscrew supported hybrid hyrax':ab,ti OR 'hybrid hyrax expan*':ab,ti OR 'maxillary skeletal expan*':ab,ti OR 'tooth bone borne rapid maxillary expan*':ab,ti OR tooth:ab,ti) AND 'bone borne expan*':ab,ti OR 'tooth bone borne rme':ab,ti OR 'tooth bone borne rpe':ab,ti OR 'surgically assisted rapid palatal expan*':ab,ti OR sarpe:ab,ti OR 'surgically assisted rapid maxillary expan*':ab,ti OR sarpe:ab,ti OR 'surgically assisted rapid palatomaxillary expan*':ab,ti OR marpe:ab,ti OR mse:ab,ti OR marme:ab,ti) AND (cbct:ab,ti OR 'cone beam ct':ab,ti OR 'cone beam computed tomography':ab,ti) AND expansion:ab,ti AND (maxilla:ab,ti OR maxillary:ab,ti)
Scopus	(TITLE-ABS-KEY("microimplant assisted rapid palatal expan*" OR "microimplant assisted palatal expan*" OR "microimplant assisted rapid maxillary expan*" OR "microimplant assisted maxillary expan*" OR "mini implant assisted rapid palatal expan*" OR "mini implant assisted palatal expan*" OR "mini implant assisted rapid maxillary expan*" OR "mini implant assisted maxillary expan*" OR "mini implant maxillary expan*" OR "miniscrew assisted rapid palatal expan*" OR "miniscrew assisted palatal expan*" OR "miniscrew assisted rapid maxillary expan*" OR "miniscrew assisted maxillary expan*" OR "microscrew assisted rapid palatal expan*" OR "microscrew assisted rapid maxillary expan*" OR "microscrew assisted palatal expan*" OR "microscrew assisted rapid maxillary expan*" OR "Bone anchored rapid palatal expan*" OR "Bone anchored rapid maxillary expan*" OR "Bone anchored hybrid Hyrax expan*" OR "hybrid rapid maxillary expan*" OR "miniscrew supported hybrid hyrax" OR "Hybrid Hyrax expan*" OR "maxillary skeletal expan*" OR "Tooth bone borne rapid maxillary expan*" OR "Tooth and bone borne expan*" OR "Tooth bone borne RME" OR "Tooth bone borne RPE" OR "Surgically assisted rapid palatal expan*" OR SARPE OR "surgically assisted rapid maxillary expan*" OR SARME OR "Surgically Assisted Rapid Palatomaxillary Expan*" OR MARPE OR MSE OR MARME) AND TITLE-ABS-KEY(CBCT OR "Cone Beam CT" OR "Cone beam computed tomography") AND TITLE-ABS-KEY(Expansion) AND TITLE-ABS-KEY(Maxilla OR Maxillary))

## Appendix. Continued

Database	Search strategy
Web of Science	ALL FIELDS: ("microimplant assisted rapid palatal expan*" OR "microimplant assisted palatal expan*" OR "microimplant assisted rapid maxillary expan*" OR "microimplant assisted maxillary expan*" OR "mini implant assisted rapid palatal expan*" OR "mini implant assisted palatal expan*" OR "mini implant assisted rapid maxillary expan*" OR "mini implant assisted maxillary expan*" OR "mini implant maxillary expan*" OR "miniscrew assisted rapid palatal expan*" OR "miniscrew assisted palatal expan*" OR "miniscrew assisted rapid maxillary expan*" OR "miniscrew assisted maxillary expan*" OR "microscrew assisted palatal expan*" OR "microscrew assisted rapid maxillary expan*" OR "microscrew assisted maxillary expan*" OR "Bone anchored rapid palatal expan*" OR "Bone anchored rapid maxillary expan*" OR "Bone anchored hybrid Hyrax expan*" OR "hybrid rapid maxillary expan*" OR "miniscrew supported hybrid hyrax" OR "Hybrid Hyrax expan*" OR "maxillary skeletal expan*" OR "Tooth bone borne rapid maxillary expan*" OR "Tooth and bone borne expan*" OR "Tooth bone borne RME" OR "Tooth bone borne RPE" OR "Surgically assisted rapid palatal expan*" OR SARPE OR "surgically assisted rapid maxillary expan*" OR SARME OR "Surgically Assisted Rapid Palatomaxillary Expan*" OR MARPE OR MSE OR MARME) AND ALL FIELDS: (CBCT OR "Cone Beam CT" OR "Cone beam computed tomography") AND ALL FIELDS: (Expansion) AND ALL FIELDS: (Maxilla OR Maxillary
Cochrane Library	"microimplant assisted rapid palatal expan*" OR "microimplant assisted palatal expan*" OR "microimplant assisted rapid maxillary expan*" OR "microimplant assisted maxillary expan*" OR "mini implant assisted rapid palatal expan*" OR "mini implant assisted palatal expan*" OR "mini implant assisted rapid maxillary expan*" OR "mini implant assisted maxillary expan*" OR "mini implant maxillary expan*" OR "miniscrew assisted rapid palatal expan*" OR "miniscrew assisted palatal expan*" OR "miniscrew assisted rapid maxillary expan*" OR "miniscrew assisted maxillary expan*" OR "microscrew assisted rapid palatal expan*" OR "microscrew assisted rapid maxillary expan*" OR "microscrew assisted maxillary expan*" OR "Bone anchored rapid palatal expan*" OR "Bone anchored rapid maxillary expan*" OR "Bone anchored hybrid Hyrax expan*" OR "hybrid rapid maxillary expan*" OR "miniscrew supported hybrid hyrax" OR "Hybrid Hyrax expan*" OR "maxillary skeletal expan*" OR "Tooth bone borne rapid maxillary expan*" OR "Tooth and bone borne expan*" OR "Tooth bone borne RME" OR "Tooth bone borne RPE" OR "Surgically assisted rapid palatal expan*" OR SARPE OR "surgically assisted rapid maxillary expan*" OR SARME OR "Surgically Assisted Rapid Palatomaxillary Expan*" OR MARPE OR MSE OR MARME in Title Abstract Keyword AND CBCT OR "Cone Beam CT" OR "Cone beam computed tomography" in Title Abstract Keyword AND Expansion in Title Abstract Keyword AND Maxilla OR Maxillary in Title Abstract Keyword - (Word variations have been searched)