Supplementary Table S1.

Parent-oriented questions on pediatric laser dentistry, with the gold-standard key points and examples of critical errors used to evaluate the large language model responses.

No	Question	Gold-standard key points	Examples of critical errors
1	What exactly is a dental laser? Why is it used in my child's dental treatment?	It should be stated that "laser" stands for "Light Amplification by Stimulated Emission of Radiation"; that it uses non-ionizing light energy; that different wavelengths are absorbed by different tissues; that it may be used in hard-tissue, soft-tissue, diagnostic, photobiomodulation (PBM), and certain adjunctive procedures; that it may support comfort and a minimally invasive approach in children; and that it is not, by itself, mandatory or superior for every procedure.	Saying "lasers are harmful like radiation," "they replace conventional methods in every treatment," or "they are always the best method."
2	What is the difference between laser-assisted caries removal and restoration, and restoration performed using conventional methods?	It should be stated that, particularly with suitable wavelengths such as erbium/CO_2, the laser may assist in removing carious tissue and preparing the cavity; that conventional treatment uses rotary instruments/burs; that vibration and noise may be reduced with the laser; that the restoration is still performed with materials such as composite or glass ionomer; and that isolation, the adhesive protocol, and restorative material selection are still required. The AAPD lists caries removal/cavity preparation as an application area for Er,Cr:YSGG and Er:YAG.	Saying "the laser replaces the filling," "once the laser removes the caries no restoration is needed," or "the laser is always superior to the conventional method."
3	In which cases is laser-assisted dental treatment preferred in children, and in which cases is conventional dental treatment preferred?	It should be stated that the choice depends on the child's age, cooperation, the type/depth of the lesion, the target tissue, the type of laser, the clinician's training/experience, and equipment availability; that the laser may be appropriate in selected superficial-to-moderate caries, soft-tissue procedures, frenectomy, gingivectomy, and ulcer treatment/PBM; and that a conventional approach may be required in very deep caries, extensive restorative needs, insufficient cooperation, emergency/complex pulpal conditions, or tissues/procedures for which the laser is unsuitable.	Saying "the laser is preferred in every child," "conventional treatment is now unnecessary," or "no clinical assessment is needed when a laser is used."
4	For which dental problems is laser treatment used in pediatric dentistry?	The following should be listed: diagnostic laser fluorescence; caries removal and cavity preparation; enamel etching; soft-tissue incision/excision, frenectomy, gingivectomy, operculectomy, biopsy; support in ulcerative lesions; wound healing and pain/inflammation control with PBM; periodontal bacterial reduction; and certain adjunctive pulpal/endodontic applications.	Overstating the indications; saying "the laser is used for all dental problems."
5	Is laser-assisted restorative treatment more durable?	It should be stated that restoration durability depends mainly on complete and appropriate caries removal, isolation, the adhesive protocol, the restorative material, cavity design, occlusion, oral hygiene, and follow-up; that the laser may, in some situations, assist with surface preparation/adhesion or a minimally invasive approach; but that laser use alone does not guarantee a more durable restoration.	Saying "a restoration placed after laser-assisted preparation is definitely longer-lasting" or "the laser prevents the filling from falling out."

No	Question	Gold-standard key points	Examples of critical errors
6	If a laser is used in my child's dental treatment, will the procedure be completely painless?	It should be stated that laser-assisted treatment may reduce pain and discomfort in some children, and that—particularly in certain superficial/moderate caries procedures and soft-tissue applications—it may provide less vibration, less conventional drill noise, and sometimes a reduced need for local anesthesia. However, the procedure should not be guaranteed to be completely painless. The level of pain/discomfort varies according to the procedure type, target tissue, caries depth, pulpal proximity, tissue inflammation, the wavelength and settings of the laser used, the clinician's experience, and the child's pain threshold, anxiety level, and cooperation. Local anesthesia may be required in deep caries, pulpal proximity, painful/inflamed tissue, or surgical procedures. Laser treatment is an adjunctive method that may improve comfort, but it does not guarantee painlessness or anesthesia-free treatment. Before the procedure, informing the child, appropriate behavior guidance, and, when necessary, pain/anxiety control methods such as local anesthesia/sedation should be considered.	Saying "laser treatment is completely painless," "if there is a laser, a needle is never needed," "the child feels nothing," "the laser completely eliminates pain in every child," "no anesthesia is needed even in deep caries," or "the laser eliminates the need for sedation or behavior management."
7	Is laser treatment faster than conventional dental treatment?	It should be stated that it may offer advantages in some soft-tissue procedures owing to hemostasis, a reduced need for sutures, and a more comfortable postoperative course; that it may offer less anesthesia or less vibration in some restorative procedures; but that procedure time varies according to the case, laser type, settings, the clinician's experience, the child's cooperation, and restorative needs, and that it is not always faster.	Saying "the laser is always faster" or "it definitely shortens treatment time in children."
8	If a laser is used in my child's dental treatment, will an injection still be necessary?	It should be stated that laser analgesia may reduce the need for local anesthesia in some suitable cases; that less anesthesia may be required particularly in superficial/moderate caries or some soft-tissue procedures; but that an injection may be required in deep caries, pulpal proximity, painful/inflamed tissue, surgical procedures, and when the child is sensitive; and that the decision is made by clinical examination.	Saying "if there is a laser, a needle is never needed."
9	My child is very afraid of the dentist. Would laser treatment be more comfortable for them?	It should be stated that the laser may improve comfort in some children owing to less noise/vibration, a lower likelihood of a needle, and a minimally invasive approach; but that behavior management is still required; that tell-show-do, communication, a trusting relationship, and appropriate behavior guidance are fundamental parts of treatment; and that the laser does not automatically ensure cooperation. Relevant pediatric laser dentistry sources emphasize that the laser may be an alternative strategy in behavior management but that the child's acceptance and an appropriate psychological approach are required.	Saying "an anxious child is definitely treated with a laser" or "sedation/GA is never needed."
10	If a laser is used in my child's dental treatment, will there be less noise and vibration?	It should be stated that, compared with rotary instruments, vibration and conventional drill noise may be reduced in some hard-tissue procedures with the laser; that this may be advantageous in anxious children; but that aspiration, water spray, device warning sounds, or operational noises are not completely eliminated; and that the child should be informed before the procedure.	Saying "the laser is completely silent" or "there is no vibration or discomfort at all."

No	Question	Gold-standard key points	Examples of critical errors
11	Is laser treatment an appropriate option for caries in my child's primary tooth?	It should be stated that laser-assisted caries removal/cavity preparation may be applied in selected caries cases in primary teeth; that erbium lasers in particular may be used with appropriate wavelength and settings; but that the depth of caries, pulpal proximity, restorative needs, the child's cooperation, and the clinician's experience should be assessed; and that the need for treatment in the primary tooth still applies. The AAPD states that Er,Cr:YSGG and Er:YAG lasers may be used for enamel/dentin caries removal and cavity preparation.	Saying "the laser is appropriate for every primary-tooth caries lesion."
12	Can laser treatment also be used for deep dental caries, or are conventional treatment methods required?	It should be stated that, in deep caries, clinical examination and radiographic assessment are required because of pulpal proximity; that the laser may help in some situations but that pulp treatment/a conventional method may be required if there is pulpal exposure, pain, irreversible pulpitis, or necrosis; that the goal in deep caries is to choose a biological and conservative approach that protects the pulp; and that the laser does not automatically prevent pulp treatment.	Saying "deep caries is always resolved with the laser without root canal/pulp treatment" or "the laser definitely protects the pulp."
13	What is the role of laser treatment in children with gingival problems?	It should be stated that the laser may be used in procedures such as soft-tissue ablation, gingival contouring, gingivectomy, operculectomy, some periodontal bacterial reduction, and PBM/wound-healing support; but that the cause of the gingival problem may be plaque, eruption, trauma, inflammation, a systemic condition, or orthodontic factors; that the primary treatment is most often plaque control, hygiene education, professional cleaning, and etiologic treatment; and that the laser is adjunctive and does not, by itself, treat all gingival diseases.	Saying "gum disease is treated with the laser alone" or "brushing/cleaning is not needed."
14	Is laser treatment more advantageous in the treatment of tongue-tie or lip-tie?	It should be stated that suitable lasers such as diode, CO_2, or erbium may be used for frenectomy/frenotomy; that possible advantages may include better hemostasis, less bleeding, a reduced need for sutures, more comfortable healing, and a short procedure time; but that the indication should be based on functional findings, that not every tongue/lip tie requires treatment, and that age, function, breastfeeding/speech/orthodontic effects, and specialist assessment are important. In the AAPD table, diode, erbium, and CO_2 lasers are listed among soft-tissue applications such as frenectomy.	Saying "every tongue-tie/lip-tie should be removed with the laser" or "the laser is always superior to conventional scalpel surgery."
15	I was told that my child's tooth requires root canal treatment. Can treatment be performed with laser alone instead?	It should be stated that the laser may assist in pulpotomy/pulpectomy or canal disinfection; but that root canal/pulp treatment involves steps such as mechanical cleaning, shaping, irrigation, disinfection, filling, and restoration; and that the laser alone does not replace root canal treatment. The AAE states that laser-assisted disinfection is more promising than canal preparation, and that laser canal shaping has not been proven more effective than mechanical shaping.	Saying "root canal treatment is performed with the laser alone" or "the laser makes root canal treatment completely unnecessary."
16	Can laser dental treatment cause any harm to my child or their teeth?	It should be stated that, with appropriate training, the correct wavelength, suitable power/energy, water-air cooling, target-tissue selection, eye protection, and infection control, the laser may be safe; but that, with incorrect parameters or inappropriate use, thermal damage, pulpal/periodontal tissue damage, soft-tissue burns, enamel/dentin damage, eye injury, or plume exposure may occur; and that safety protocols are mandatory. The AAE states that, in endodontic use, the temperature rise may pose a risk to dentin, soft tissue, and surrounding bone.	Saying "the laser has no risks" or "it cannot harm the child's teeth."

No	Question	Gold-standard key points	Examples of critical errors
17	Is eye protection required during laser dental treatment in children?	Yes. The child, the clinician, auxiliary personnel, and any observers in the room should wear protective eyewear appropriate to the laser's wavelength; ordinary sunglasses are not sufficient; the laser beam may harm the eye directly, by reflection, or by scattering; and it is part of the laser safety protocol. The AAPD clearly states that wavelength-specific protective eyewear is required for the entire team, the patient, and observers.	Saying "eye protection is not needed," "it is sufficient for only the clinician to wear glasses," or "ordinary glasses are sufficient."
18	What should be considered after my child has undergone laser dental treatment?	It should be stated that the clinician's recommendations should be followed according to the procedure type; that after a soft-tissue procedure one should avoid traumatizing the area, maintain appropriate oral hygiene, use the recommended analgesics/medications, temporarily avoid hot/hard/spicy foods, and watch for signs of bleeding/swelling/pain/infection; that after a restorative procedure, filling care, nutrition, and a follow-up appointment are important; and that if numbness is present, the risk of lip/cheek biting should be explained.	Giving the same aftercare advice for every procedure; never mentioning signs of complications and the need to contact the clinician.
19	It is claimed that lasers remove all dental caries and that, therefore, no additional treatment is necessary. Is this true?	No. It should be stated that the laser may assist in caries removal but cannot be claimed to remove all caries in a "guaranteed" manner; that the extent and depth of caries and the pulpal status should be assessed; that restoration is required in most cases after the caries is removed; that pulp treatment, follow-up, or conventional methods may be required if necessary; and that regular follow-up and preventive applications should continue.	Saying "the laser definitely cleans all caries," "no filling/additional treatment is needed after the laser," or "no follow-up is needed."
20	My child is unable to cooperate with dental treatment. If a laser is used, can treatment be performed without the need for sedation or general anesthesia?	It should be stated that the laser may improve comfort in some children and reduce anxiety about noise/vibration/the needle; but that it may not be sufficient by itself in uncooperative children; that behavior management, age, developmental level, procedure duration, treatment scope, pain, urgency, and the medical condition should be assessed; that in some cases sedation or general anesthesia may still be required; and that the decision should be made by the pediatric dentist and, if necessary, the anesthesia team. Relevant pediatric laser dentistry sources state that the laser may assist in behavior management but that the child's cooperation is still required.	Saying "if there is a laser, sedation/GA is definitely not needed" or "even without cooperation, every treatment can be performed with the laser."

AAPD, American Academy of Pediatric Dentistry; AAE, American Association of Endodontists; PBM, photobiomodulation; GA, general anesthesia.