

London Region Endodontic Referral Form

All London Region complexity levels 1, 2 and 3 NHS endodontic referrals will be made by use of this pro-forma which is the agreed process of clinical triage for patients requiring endodontic services in the London region. The pre-referral criteria and checklist is detailed on page five. This pro-forma should be typed, not hand written. Only pages one to four should be sent to the triager, the guidance in pages five to eight can be discarded.

Patient details

Full name:	
NHS number (if known):	
Hospital number (if previously attended the hospital):	
Date of birth:	
Address (including postcode):	
Gender:	
E-mail:	
Mobile phone number:	

Referring GDP details

Name of referring dentist:	
GDC number of referring dentist:	
Practice address (postcode must be included):	
Date of referral:	
E-mail (NHSmal only):	
Telephone number:	

Declaration	Option	Please mark with an X
I confirm that appropriate radiograph(s) have been submitted with referral.	Yes	
	No	
I confirm that the tooth is restorable and is of strategic value for patient's oral health.	Yes	
	No	
I confirm that I will: Undertake any suggested pre-treatment restorative dismantling suggested by the specialist/consultant.	Yes	
	No	
Take on the responsibility of tooth restoration (core and cuspal-protection restoration) after endodontic therapy and that the patient understands the importance and risks of this not being done.	Yes	
	No	
If the referral is of level 1 complexity (routine), do you (the referrer) wish the patient to be considered for teaching and education? (referrer must accept that if there is no capacity, the referral will be declined)	Yes	
	No	
Please confirm that your referral fulfils the London LDN triage requirements for Level 2 or 3 complexities.	Yes	
	No	
If the answer to the above question is NO then please outline another valid reason why the patient should be assessed.		

Details of the referral (all sections are mandatory):

Details of the tooth/teeth being referred (e.g. UR6, UL1, LL5 etc):								
Mark with an X	Reason for referral							
	Advice only (including diagnostic or treatment planning challenges)							
	Root canal treatment							
	Root canal re-treatment (including correction of iatrogenic errors)							
	Periradicular surgery							
	Other endodontic management (vital pulp therapy, complex sequelae of trauma, resorption, dental anomalies, systemic complications)							
Nature and history of presenting problem (to include present and/or past symptoms):								
Medical history, including medications:								
Please provide details of treatment provided in primary care for this tooth/teeth (including any difficulties encountered) e.g. pulp extirpated, tooth opened to drain infection, incision & drainage, or restoration removed to assess restorability:								
Current BPE scores (following treatment):								
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R		L						
Declaration	Option	Please mark with an X						
Has all treatment of primary dental disease (caries and periodontal disease) been completed?	Yes							
	No							
Details of primary disease treatment completed:								

Secondary Care Triage Centre & Level 3 Complexity Provider and Level 2 Complexity Provider Selection


All referrals must be triaged in secondary care. Please select your appropriate triage centre from the list below, triage is based on GDP location. Some boroughs are supported by more than one triage centre. Please send your referral to one triage centre only.

Geographical Footprint	Boroughs Covered	Triage Centre	Mark with X
North West London (inner)	Hammersmith & Fulham, Kensington & Chelsea, Westminster	Central London Community Healthcare (CLCH) Email: CLCHT.specialistdental@nhs.net	
North West London (outer) and North Central London	Barnet, Enfield, Camden, Haringey, Islington, Brent, Harrow, Ealing, Hillingdon, Hounslow	University College London Hospitals NHS Foundation Trust (UCLH) Email: Uclh.referrals.endodontics@nhs.net	
North East London	Redbridge, Waltham Forest, Barking & Dagenham, Havering, City & Hackney, Newham, Tower Hamlets	Barts Health NHS Trust Email: bhnt.restoratedentistry@nhs.net	
South East London	Bexley, Greenwich, Bromley, Lambeth, Lewisham, Southwark	Guy's & St. Thomas' NHS Foundation Trust Email: gst-tr.endodonticreferrals@nhs.net OR King's College Hospital NHS Foundation Trust Email: kch-tr.dentalmaillist@nhs.net	
South West London	Croydon, Sutton, Kingston, Merton, Richmond, Wandsworth	Croydon University Hospital NHS Trust (CUH) Email: ch-tr.hospitaldentistry@nhs.net OR St. George's Hospital NHS Foundation Trust (STG) Email: stgh-tr.Restorative.Dentistry@nhs.net OR Kingston Hospital NHS Foundation Trust Email: khft.restoratedentistry@nhs.net	

Please select the patient's choice of Level 2 provider, choice is not restricted by patient or GDP location.

Boroughs	Level 2 Provider	Mark with X
Hillingdon	Hillingdon Endodontic Centre @ Feelgood Dental (UB8 1QU) Hillingdon Endodontic Centre @ Yiewsley Dental Practice (UB7 8HJ)	
Ealing and Hounslow	TBC Please use surrounding services	
Brent and Harrow	MOS Solutions LTD @ Headstone Lane (HA2 6ND)	
Hammersmith & Fulham, Kensington & Chelsea and Westminster	EndoBDG @ Bloom & Gonsai (W1G 8DB)	
Redbridge and Waltham Forest	MOS Solutions Ltd @ Dentaliving (IG5 0NZ)	
Barking & Dagenham and Havering	Newham Family Dental Care Ltd @ Collier Row Dental Practice (RM5 3NR)	
City & Hackney, Newham and Tower Hamlets	Newham Family Dental Care Ltd @ Barbican Dental Centre (EC1M 7AA) Newham Family Dental Care Ltd @ Burgess Road Dental (E6 2BH)	
Barnet and Enfield	MOS Solutions Ltd @ Hazelwood Dental Practice (N13 5EU)	
Camden, Haringey and Islington	MOS Solutions @ Smile Care (N19 5QT)	
Bexley and Greenwich	Bexleyhealth Dental Practice Ltd @ Bexleyhealth Dental Practice (DA6 8AA)	
Bromley	TBC Please use surrounding services	
Lambeth, Southwark and Lewisham	Dentistry for You Ltd @ Forest Hill Dental Surgery (SE23 3HN) Dentistry for You Ltd @ Brixton Dental Practice (SW9 7NU)	
Croydon and Sutton	Newham Family Dental Care Ltd @ Sutton Dental Practice (SM6 7BJ)	
Kingston, Merton, Richmond and Wandsworth	Shamila Ltd @ Green Dental Care (SW11 3QA)	

Radiograph/s – please cut and paste into the space below including exposure date and side of mouth:



Pre-referral checklist & entry criteria:

- Stable oral environment should have been achieved and all caries managed.
- Patient is informed and understands that the treatment may involve multiple long appointments and that success cannot be guaranteed.
- Tooth / teeth should be predictably restorable and made functional after removal of disease with supragingival sound coronal tooth tissue distributed circumferentially with a minimum height of 3 mm and thickness of 2 mm, together with intact axial pulp chamber walls.
- For many teeth this will only be possible after removal of existing restoration(s) and the placement of a sound and well-fitting provisional restoration prior to referral.
- Where the referred tooth has a de-cemented bridge retainer or caries is evident at the restoration margin, the restoration should be removed by the referring practitioner for caries removal and restorability assessment before referral. The tooth should only be referred with a sound well-fitting temporary restoration in place.
- Patient is informed and understands that the referring practitioner is responsible for the provision of all restorative phases after completion of endodontic treatment (and not to do so would risk both endodontic failure and tooth loss).
- Endodontic treatment is not precluded by either patient cooperation or medical history.
- Patient is motivated with satisfactory periodontal health. For BPE codes 2, 3 and 4, there should be clarification that supra/sub gingival debridement has been performed using local anaesthetic and periodontal control achieved prior to referral.
- Referral must be accompanied by a periapical radiograph of diagnostic quality (*please see notes on radiographs accompanying referral below*)
- Referral request must fall into either level II or 3 complexity as described in the acceptance criteria below.
- Patient must be informed and understand that referral for treatment is preceded by a consultation and does not guarantee acceptance for treatment, if deemed unsuitable.

Radiographs accompanying referral (important information):

- All referrals must be accompanied by a current, dated and diagnostically acceptable parallel-view periapical radiograph(s) of the tooth/teeth referred.
- Radiographs (and thus the referral) will be rejected by the triager if the diagnostic quality is unsafe for decision-making (radiographs fall into either IR(ME)R2000 grade 1 or 2).
- Where paper copies of conventional or digital radiographs accompany the referral the same quality standards will apply *e.g. the referral will not be accepted where the quality of the paper copy does not allow safe diagnostic assessment by the triager.*

Complexity Guidelines:**Level 1****Routine treatment (root canal treatment and retreatment)**

- Root canals with a curvatures < 30° to the root canal, following straight line access, not > 25 mm long and considered negotiable (i.e. canal(s) not sclerosed) through their entire length.
- Where previously root treated, root fillings should be poorly compacted (as evidenced by voids and gaps) and will be short of or at the optimal working length with radiographic evidence of likely canal patency beyond the root filling.

Emergency treatment

- The treatment of mild, acute trauma (including simple repositioning, re-implanting and splinting of teeth, repair of fractured teeth and root canal treatment when required, if designated Level 1 complexity).
- Pulp extirpation or incision and drainage, as an emergency treatment.

Level 2**Routine treatment (root canal treatment and retreatment)**

- Root canals with:
 - Curvatures > 30° but < 45° to the root canal, following straight line access, not > 25 mm long and with root canals radiographically evident, but not for their entire length.
 - Moderately complex technical problems in location, negotiation, instrumentation, disinfection (persistent infection/symptoms) and obturation of root canals.

- Previously root treated - root fillings should be well-compacted and amenable to removal using conventional techniques and may be short of the optimal working length with radiographic evidence of likely canal patency beyond the root filling.
- Treatment may include the removal of short posts / fractured posts (less than ~ 8mm in length) and not accompanied by other complications cited for Level 3 complexity.
- Molar tooth endodontic treatment accompanied by limitation of mouth opening (between 25mm and 35mm inter-incisal opening).

Emergency Treatment

- The treatment of teeth affected by dental trauma when root canal treatment is designated at Level 2 complexity, and including vital pulp therapy e.g. partial pulpotomy.

Specific to Level 2:

- Diagnosis of teeth with suspected “cracked tooth syndrome”. This includes examination, diagnosis and may involve placement of an orthodontic band etc if required. The permanent restoration will be provided in general dental practice.
- Teeth with incomplete root development, requiring root canal treatment.

Level 3

Routine treatment (root canal treatment and retreatment)

- Root canals with:
 - Curvatures > 45° to the root canal following straight line access, length > 25 mm and with root canals NOT radiographically evident through their entire length.
 - Multiple curves (in the same or opposite directions e.g. S-shaped).
 - Complex technical problems in location, negotiation, instrumentation, disinfection (persistent infection/symptoms) and obturation, e.g. difficult but potentially rectifiable ledges, blocked canals, perforations, etc.
 - Associated perforations.
 - Fractured instruments.
- Previously root treated:
 - Root fillings should be well-compacted and amenable to removal using conventional techniques, and may be short of the optimal working length with NO radiographic evidence of likely canal patency beyond the root filling.
 - Roots may be overfilled with clinical and radiographic signs of infection where standard techniques for removal are not possible.
 - Treatment may include the removal of well-fitting posts/fractured posts longer than 8mm and carrier-based, resin or silver point root-fillings.

Emergency treatment

- Assessment and planning the long-term multi-disciplinary management of severely traumatised teeth (including delayed reimplantation/non-reimplantation of avulsed teeth, intruded, laterally luxated and extruded teeth).

Specific to Level 3:

- Root canal systems with anatomical complexities other than curvatures; e.g., complex developmental tooth anomalies, additional roots, bifid apices, complex branching of root canal(s), invaginations such as dens-in-dente, fused teeth, C-shaped canals, etc.
- The management of restorable teeth with structural damage due to iatrogenic causes, or resorption (excluding resorption at their root tips due to chronic infection).
- Periradicular surgery, when endodontic retreatment under any Level is not possible or when conventional root canal treatment has been completed to guideline quality standards (details of treatment to be given e.g. rubber dam isolation, sodium hypochlorite irrigant, restored with a restoration with no obvious signs of microleakage).
- Pain diagnosis, when a definitive diagnosis is unclear. Teeth must have been pulp tested (cold and electric pulp tester) and have been challenged with stimulating/exacerbating factors e.g. cold, hot and sweet prior to referral, and the results given. Cases where there are obvious clinical and radiographic signs of infection from the referral will not be considered.
- Second opinions. This may not necessarily require an appointment if the information and/or the radiograph provided are sufficient to give a second opinion.

Cases not accepted

- Failed local analgesia following primary injection(s) and a supplemental injection (intraalveolar / intraosseous). Sedation/GA will be required.
- Patients with severe limitation of mouth opening (inter-incisal opening < 25 mm) who need root treatment in posterior teeth, where access is not possible. Patients need referral for treatment of trismus/poor mouth opening or possibly extraction.
- Gagging patients - refer to an appropriate service to treat the gagging.

All London level 1, 2 and 3 complexity NHS endodontic referrals will be made by use of this pro-forma which is the agreed process of clinical triage for patients requiring endodontic services in the London. The process is overseen by the Local Dental Network and referrals that do fulfil the stated requirements or fall out with level II (moderately difficult) or level III (complex) will be declined and returned to the referrer.

Risk screening & entry criteria:

- Stable oral environment should have been achieved and all caries managed.
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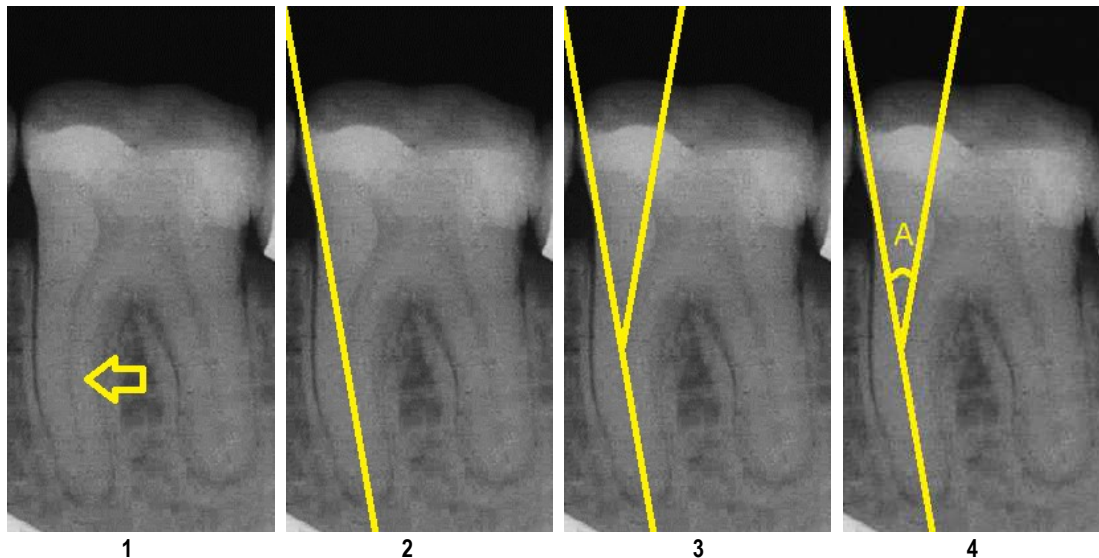
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Measuring the angulation of root canals

To measure the angulation of a root canal:

1. Firstly pick the most curved root.
2. Draw or imagine a straight line on the apical third of the root, following the course of the root canal in this region.
3. Draw or imagine a second line on the coronal part of the root, following the course of the root canal in this region after straight line access has been achieved. This is normally a near vertical line extending from the maximum curvature of the root to the most mesial part of the pulp chamber.
4. The smaller angulation (A) between the two lines is the angulation of the root canal.



To measure this accurately, your digital radiography software can be used or alternatively an old fashioned protractor can be used.

Digitizing conventional film radiographs

This is relatively easy to do using a smartphone. The normal camera may not allow you to get close enough to the film to focus on it. Most smartphones have a magnifier function which can be used to take photographs.

On an iPhone:

1. Press the Home key rapidly three times.
2. Place the film on a light box or radiograph viewer.
3. Take the photograph.



With a basic smartphone app, occasionally you will see banding or flickering in the image. This is because the frequency of the electrical supply of your light box is 50 Hz, so if your phone's shutter speed is faster than 1/50 second, a full cycle of light is not completed during the exposure and banding may appear. When the exposure of your phone is automatic, you do not have control of the shutter speed so this phenomenon can be unpredictable. If you have a more advanced camera app or use a digital camera, then choosing a shutter speed slower than 1/50 second eliminates this problem. This problem is more common with fluorescent than incandescent light sources.

(Guide kindly produced by Geoffrey St. George – Consultant in Restorative Dentistry, UCLH)