

# Developing guidance with knowledge translation in mind

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on behalf of the TRiADS methodology group

Improving Quality in Healthcare:  
Translating Evidence into Practice Conference  
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# Developing guidance with knowledge translation in mind

- Background to SDCEP
- Guidance Development Process
- Influence of knowledge translation activities -TRiADS



Scottish Dental  
Clinical Effectiveness Programme

*'supporting the dental team to provide quality patient care'*

- providing user-friendly, evidence-based guidance on priority topics for oral health care in Scotland

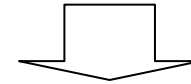
Remit:

- Development
- Dissemination
- Regular update
- Implementation (Knowledge translation)
- Evaluation

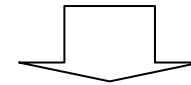
# Guidance development activities



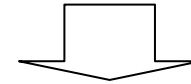
Guidance Development Group



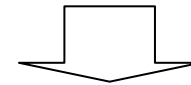
Define the Scope



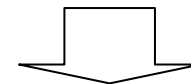
Develop consultation draft



Consultation period



Revise & peer review



Publication & dissemination

# Published guidance

- [Conscious Sedation in Dentistry \(updated 2012\)](#)
- [Decontamination Into Practice \(Cleaning & Sterilization of Dental Instruments\)](#)
- [Emergency Dental Care](#)
- [Drug Prescribing \(updated 2011\)](#)
- [Prevention and Management of Dental Caries in Children](#)
- [Practice Support Manual](#)
- [Oral Health Assessment and Review](#)
- [Oral Health Management of Patients Prescribed Bisphosphonates](#)

# Prevention and Management of Dental Caries in Children


- Based on SIGN 47 and 83
- Assessment
- Delivery of preventive care based on caries risk
- Caries management options
- Restorative care, including how to carry out individual treatments
- Recall and referral
- Providing additional support
- Management of suspected dental neglect



Prevention and Management of Dental Caries in Children

## 6 Caries Prevention

- Isolate and thoroughly dry the teeth a quadrant at a time to optimize adhesion of the varnish to the tooth.
- Apply a small amount of fluoride varnish using a small brush.
- Advise that the child should eat soft food and should not brush their teeth for the rest of the day.



### 6.5 Fissure Sealants

Fissure sealants have been shown to reduce pit and fissure caries in primary and permanent teeth<sup>17</sup>. There is evidence that they are more effective in reducing decay in occlusal surfaces than fluoride varnish<sup>17,21</sup>.

*Enhanced Prevention for children at increased risk of caries*

- Place sealants in all pits and fissures of permanent teeth** if you assess the child, or a particular tooth, as at increased risk of developing caries.
  - Resin-based sealants are the first choice of material (see application technique below).
  - Remember the buccal pits of lower 6s and the palatal fissures of upper 6s.
- Consider using glass ionomer cement as a temporary sealant on partially erupted first and second permanent molars until the tooth is fully erupted, or on fully erupted teeth where the child is pre-cooperative.
- If unable to provide fissure sealants (e.g. due to the child being pre-cooperative or learning disabled), then refer the child to have this treatment provided (see Section 11).
- Consider fissure sealing E3, 4c and 5c, and palatal pits on upper 2s.
- Check existing sealants** for wear and integrity/sealage at every recall visit.
- 'Top up' worn sealants** if the child is still at increased risk of caries.


Prevention and Management of Dental Caries in Children

## 6 Caries Prevention

*Fissure fissure sealant application technique*


Fissure sealants must be placed with careful attention to technique if they are to show good long-term retention. However, even well-placed sealants wear or are lost over time. Therefore, they must be monitored and topped up with additional resin if they wear sufficiently to expose fissures while the child is still assessed as at increased risk of caries.

- Clean the tooth using one of the following methods to ensure it is free from obvious debris (use of a 3-in-1 syringe alone is usually insufficient to clean fissures if debris is present).




- Wipe the tooth with cotton wool pellets.
- Clean with a toothbrush with no paste.
- Use a bristle brush without prophylactic paste.
- Gently dredge the fissures with a probe taking extreme care to avoid damaging the enamel.

- Check the air line is free from water by blowing air onto the mirror surface to reveal any water contamination.



- Isolate the tooth using cotton wool rolls, mouth mirror and saliva ejector and consider the use of dry guard.



# Drug Prescribing for Dentistry

- Based on dentally relevant information within the British National Formulary
- A5 spiral bound booklet
- Prescribing for a range of oral conditions
- Problem-oriented style with drug regimens presented as 'prescriptions'
- Emphasis on use of local measures where possible

Drug Prescribing For Dentistry

## 4 Bacterial Infections

### 4.3 Acute Necrotising Ulcerative Gingivitis and Pericoronitis

As an adjunct to local measures (see below), metronidazole is the drug of first choice in the treatment of acute necrotising ulcerative gingivitis and the treatment of pericoronitis where there is systemic involvement or persistent swelling despite local measures. A suitable alternative is amoxicillin.

**Local Measures** – to be used in the first instance

- In the case of acute necrotising ulcerative gingivitis, carry out scaling and provide oral hygiene advice.
- In the case of pericoronitis, carry out irrigation and debridement.

If drug treatment is required, an appropriate 3-day regimen is:

<b>Metronidazole Tablets, 200 mg</b>	<b>For children:</b>
Send: 9 tablets	<b>Metronidazole<sup>†</sup> Tablets, 200 mg, or Oral Suspension, 200 mg/5 ml</b>
Label: 1 tablet three times daily	1-3 years 50 mg three times daily

**What to tell the patient**

This will upset Stool to show if you have the adult dose for elderly of children's tablets. ADVISE ALL PATIENTS THAT THEY SHOULD TAKE AN ANTIBIOTIC AND THAT THEY SHOULD NOT DRINK ALCOHOL.

Refer to Appendix 1 of the BNF and Appendix 2 of the BNF for further information on drug interactions.

★ ★ ★ ★ ★ iPhone app



# Practice Support Manual

- Ethical Practice
- Record-keeping
- Communication
- Risk Management
- Health and Safety
- Radiation Protection
- Disability Equality
- Medical Emergencies and Life Support
- Audit and Significant Event Analysis
- Supporting tools:  
templates, checklists
- Latest updates
- Inspection

The screenshot shows the homepage of the Practice Support Manual website. The browser window title is "Practice Support Manual > Home - Mozilla Firefox". The address bar shows "www.psm.sdcep.org.uk". The website header includes the SDcep logo, "Scottish Dental Clinical Effectiveness Programme", and "Practice Support Manual". There are navigation tabs for "Home", "Content", and "About", along with a search bar. The main content area is divided into several sections:

- Welcome to the SDCEP Practice Support Manual:** A paragraph explaining the purpose of the PSM and a link to the "Content" page.
- Why use the PSM?:** A paragraph explaining the benefits of the PSM and a link to the "Content" page.
- Who is the PSM for?:** A paragraph explaining the target audience and a link to the "Content" page.
- PSM Content:** A list of topics including Ethical Practice, Record-keeping, Communication, Risk Management, Health and Safety - General, Health and Safety - Infection Control, Radiation Protection, Disability Equality, Medical Emergencies and Life Support, and Audit and Significant Event Analysis.
- Supporting Tools:** A list of tools including Checklists, Templates, and Sources of Information.
- Latest Updates:** A section for "Health and Safety - General" and "Record-keeping", with links to "Existing users log in here" and "New users register here".

The footer of the website includes a disclaimer, copyright information, and a link to the "Privacy Policy". The URL "www.psm.sdcep.org.uk" is prominently displayed at the bottom of the page.

# Oral Health Assessment & Review

- Based on NICE Dental Recall guideline
- Guidance on a new risk-based approach to the standard dental examination
- Underpins more preventive, person-centred care



Patient's Personal Details		Form 1	
Please write clearly		For office use CHI Number <input type="text"/>	
Title (Please tick appropriate box) <input type="checkbox"/> Mr <input type="checkbox"/> Ms <input type="checkbox"/> Mrs <input type="checkbox"/> Miss <input type="checkbox"/> Other (Please state below)		Permanent Address	
Surname		Postcode	
Forename		Email Address	
Sex <input type="checkbox"/> Male <input type="checkbox"/> Female		Contact Phone No.	
Date of Birth Day <input type="text"/> / Month <input type="text"/> / Year <input type="text"/>		Doctor's Name	
Family Name at Birth		Doctor's Address	
Occupation		Postcode	
If retired, previous occupation		Doctor's Phone No.	
Ethnicity (Please tick appropriate box)			
White <input type="checkbox"/>			
Black, Black British, Black Scottish <input type="checkbox"/>			
Asian, Asian British, Asian Scottish <input type="checkbox"/>			
Mixed (Please state) <input type="checkbox"/>			
Other ethnic background (Please state) <input type="checkbox"/>			

Oral Health Assessment and Review Checklist			
Patient Name		For office use CHI Number <input type="text"/>	
Date of Assessment		Day <input type="text"/> / Month <input type="text"/> / Year <input type="text"/>	
Assessment Type FCHR / OHA		Date of Assessment	
Patient Histories Completed/Updated*			
• Personal details	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comment	
• Social history	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Dental history	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Medical history	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Dental anxiety level	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Dentist reviewed histories	<input type="checkbox"/> Yes <input type="checkbox"/> No		
<small>*If new patient, complete new forms; if returning patient, add patient if anything has changed and review forms completed previously</small>			
Clinical Assessment Completed/Updated*			
• Head and neck	<input type="checkbox"/> Yes <input type="checkbox"/> No	Comment	
• Oral mucosal tissue	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Periodontal tissue (BPE/plaque scores)	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Teeth	<input type="checkbox"/> Yes <input type="checkbox"/> No		
- Caries and restorations	<input type="checkbox"/> Yes <input type="checkbox"/> No		
- Tooth surface loss	<input type="checkbox"/> Yes <input type="checkbox"/> No		
- Tooth abnormalities	<input type="checkbox"/> Yes <input type="checkbox"/> No		
- Fluorosis	<input type="checkbox"/> Yes <input type="checkbox"/> No		
- Dental trauma	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Occlusion	<input type="checkbox"/> Yes <input type="checkbox"/> No		
• Orthodontic needs	<input type="checkbox"/> Yes <input type="checkbox"/> No	N/A <input type="checkbox"/>	
Dentures <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A			
<small>*Record full details of any significant findings separately</small>			
Effectiveness of treatment		Good <input type="checkbox"/> Poor <input type="checkbox"/> N/A <input type="checkbox"/>	Comment
Patient compliance with advice		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Risk Assessment		High <input type="checkbox"/> Medium <input type="checkbox"/> Low <input type="checkbox"/>	Comment
• Oral mucosal disease			
• Periodontal disease			
• Caries			
• Other (please note)			
OVERALL RISK			
Prevention advice given		Yes <input type="checkbox"/> No <input type="checkbox"/>	Comment
Preventive treatment required		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Operative treatment required			
Review interval (months) (following completion of any treatment):			
3 6 9 12 15 18 21 24			
Proposed date for next OHA (following completion of any treatment):		No Change Change	
Personal Care Plan Review		<input type="checkbox"/> Yes <input type="checkbox"/> No	

# Translating SDCEP guidance into practice



- Widespread translation of guidance into practice is unlikely to be achieved through publication and dissemination
- Additional knowledge translation strategies
  - seldom explicit theoretical rationale for intervention choice
    - unable to predict what works where and when
  - few studies conducted in dental practice

# TRiADS – Translational Research in a Dental Setting

- Aims to improve the quality of the dental healthcare of patients in Scotland by:
  - establishing a practical evaluative framework for the translation of guidance
  - conducting and evaluating a programme of integrated, multi-disciplinary, knowledge translation research embedded within SDCEP guidance development

Clarkson *et al.* *Implementation Science* 2010, **5**:57  
<http://www.implementationscience.com/content/5/1/57>



IMPLEMENTATION SCIENCE

**STUDY PROTOCOL**

**Open Access**

## The translation research in a dental setting (TRiADS) programme protocol

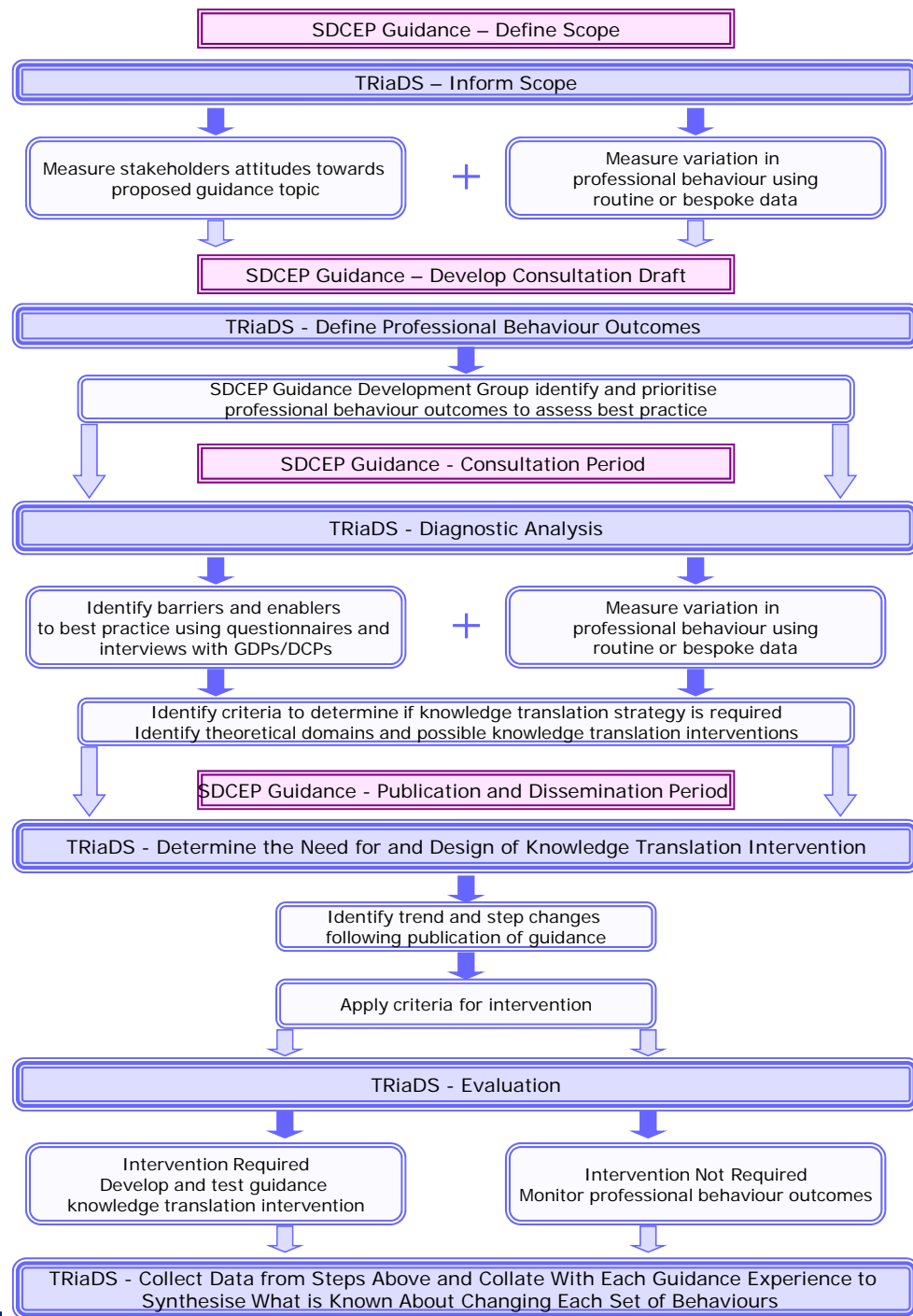
Jan E Clarkson<sup>1\*</sup>, Craig R Ramsay<sup>2</sup>, Martin P Eccles<sup>3</sup>, Sandra Eldridge<sup>4</sup>, Jeremy M Grimshaw<sup>5</sup>, Marie Johnston<sup>6</sup>, Susan Michie<sup>7</sup>, Shaun Treweek<sup>8</sup>, Alan Walker<sup>9</sup>, Linda Young<sup>10</sup>, Irene Black<sup>9</sup>, Debbie Bonetti<sup>1</sup>, Heather Cassie<sup>1</sup>, Jill Francis<sup>2</sup>, Gillian MacKenzie<sup>10</sup>, Lorna MacPherson<sup>11</sup>, Lorna McKee<sup>2</sup>, Nigel Pitts<sup>1</sup>, Jim Rennie<sup>12</sup>, Doug Stirling<sup>10</sup>, Colin Tilley<sup>13</sup>, Carole Torgerson<sup>14</sup>, Luke Vale<sup>2</sup>

# The TRiADS Framework

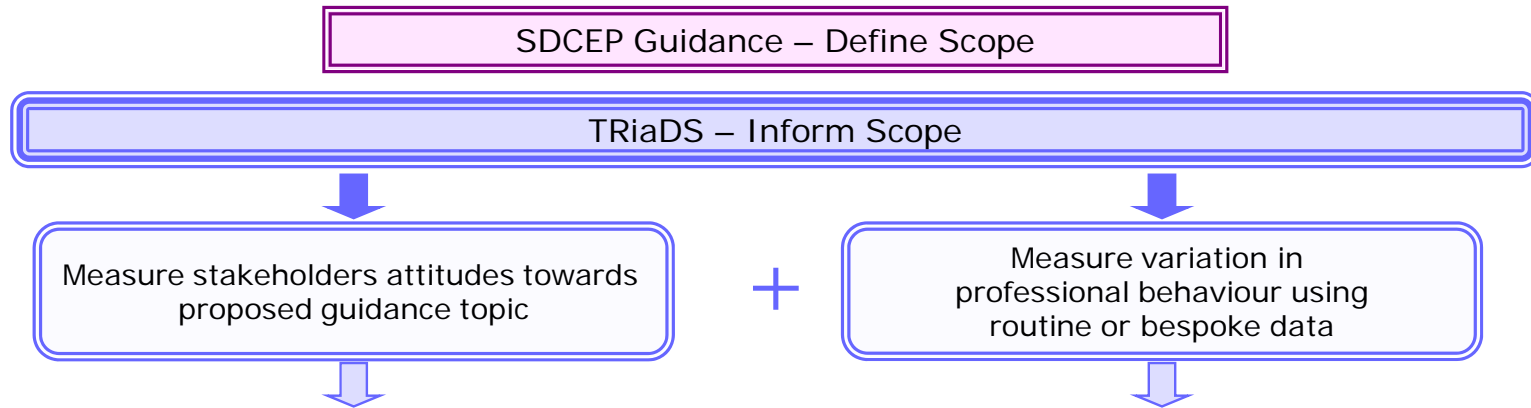
A standardised process to:

- determine the need for and design of a KT intervention
- evaluate the KT intervention to inform future choices

Also influences guidance development



# Informing the scope

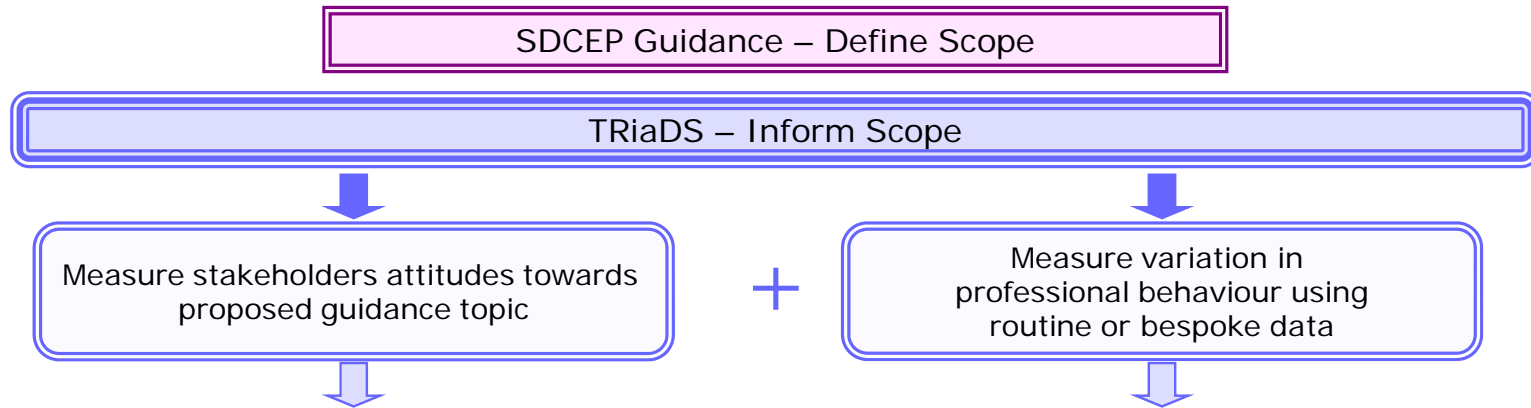


## Example 1: Management of Acute Dental Problems

Methods: postal questionnaires to GDPs, GPs and pharmacists

- provided a baseline for future evaluations
- informed which 'dental problems' to include
- confirmed GPs and pharmacists would like guidance
- feedback on preferred format e.g. as flowcharts, electronic and paper-based

# Informing the scope



## Example 2: Prevention and Treatment of Periodontal Diseases

Methods: semi-structured interviews with dentists; postal questionnaires to dental hygienists and therapists

- provided a baseline for future evaluations
- difference in the motivation and confidence of dentists and hygienists & therapist regarding providing periodontal care
- need for guidance on treatment planning, referral criteria and supporting patient behaviour change
- feedback on preferred format

# Defining professional behaviour outcomes

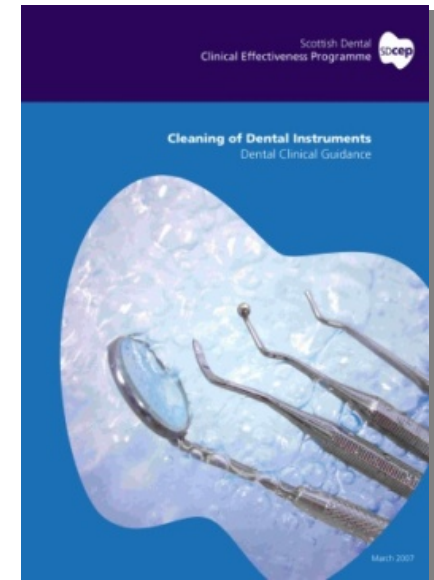
SDCEP Guidance – Develop Consultation Draft

TRiADS - Define Professional Behaviour Outcomes

SDCEP Guidance Development Group identify and prioritise professional behaviour outcomes to assess best practice

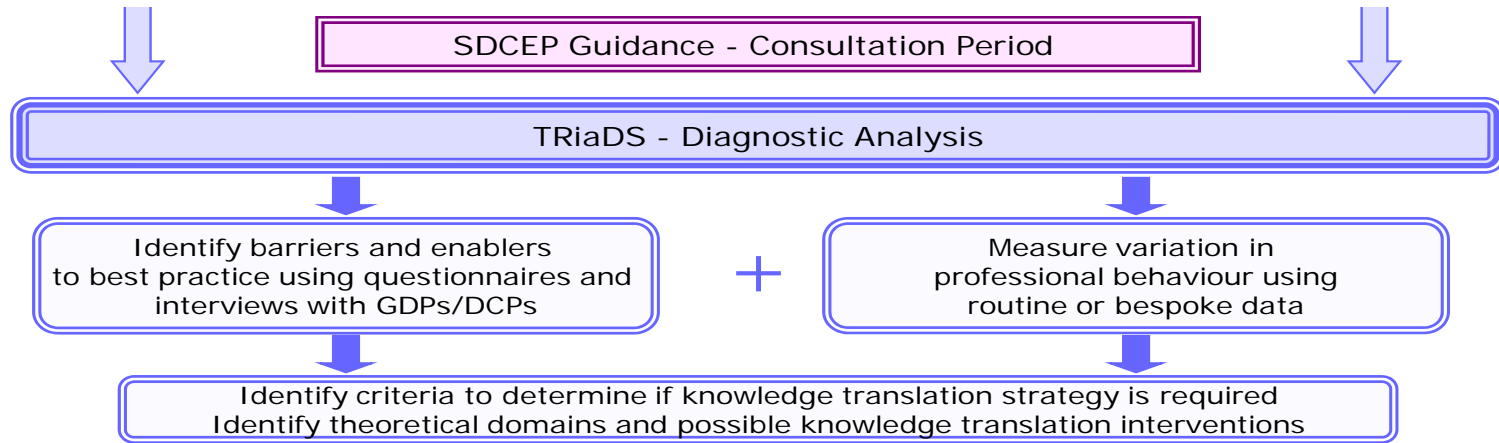
## Example: Cleaning of Dental Instruments

- numerous recommendations assessed to identify key behaviour outcomes that are observable and measurable
- encouraged the group to consider what were the behaviours most central to improving practice
- opportunity to reconsider whether a change of emphasis within the guidance was necessary





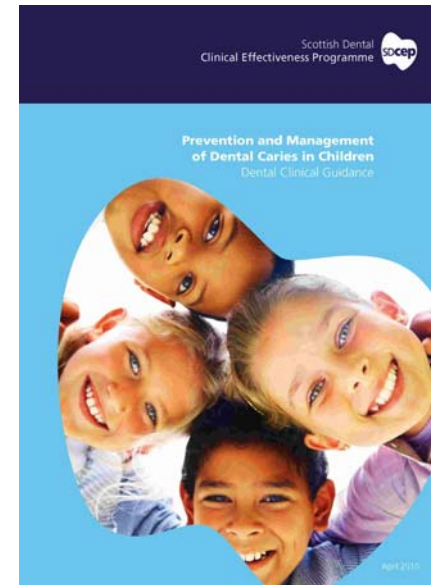
# Diagnostic Analysis



## Example: Prevention and Management of Dental Caries in Children

Methods: questionnaire and semi-structured interviews with dentists

- 15 key behaviours; 3 with very low compliance
- guidance content amended



# Applying the TRiADS framework

SDCEP Guidance Topic	Inform Scope	Define Professional Behaviour Outcomes	Diagnostic Analysis	KT Intervention Decision	Evaluation
Decontamination I – Instrument Cleaning		X	X	X	X
Emergency Dental Care		X	X	X	
Drug Prescribing		X	X	X	X
Caries Prevention and Management in Children		X	X		
Practice Support Manual		X	X	X	
Oral Health Assessment		X	X	X	X
Decontamination II – Instrument Sterilization		X	X		
Bisphosphonates	X	X	X	X	
Management of Acute Dental Problems	X	X			
Decontamination III – Management	X	X			
Periodontal Management	X				

# Summary

- SDCEP is now an important source of guidance for dental professionals in Scotland and beyond – also relevant to other disciplines
- We have Knowledge Translation in mind at all stages of guidance development
- Through TRiADS, SDCEP has KT research embedded within guidance development
- Close links with education providers and policy makers
- Contributing to NHSScotland's Quality Strategy to support safe, effective, person-centred healthcare

# Acknowledgements

- Members of Guidance Development Groups
- All respondents and contributors to consultations
- SDCEP Team
- TRiADS Methodology Group
- NHS Education for Scotland

[www.sdcep.org.uk](http://www.sdcep.org.uk)