# 'Healthy gums do matter': A case study of clinical leadership within primary dental care

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**IN BRIEF**

- Raises awareness of the role of NHS England's Local Professional Networks (LPNs) as a forum for clinical leadership in dentistry across England.
- Provides an example of commissioners supporting the development and piloting of a practitioner-led Toolkit for the management and prevention of periodontal disease.

PRACTICE

The Health and Social Care Act 2012 heralded wide reaching reforms intended to place clinicians at the heart of the health service. For NHS general dental practice, the conduits for this clinical leadership are the NHS England local professional networks. In Greater Manchester, the local professional network has developed and piloted a clinician led quality improvement project: 'Healthy Gums DO Matter, a Practitioner's Toolkit'. Used as a case study, the project highlighted the following facilitators to clinical leadership in dentistry: supportive environment; mentoring and transformational leadership; alignment of project goals with national policy; funding allowance; cross-boundary collaboration; determination; altruism; and support from wider academic and specialist colleagues. Barriers to clinical leadership identified were: the hierarchical nature of healthcare, territorialism and competing clinical commitments.

## INTRODUCTION

Clinical leadership in general dental practice may usually be thought of as the skills required to provide effective patient care within a successful business. However, the reforms brought about by the Health and Social Care Act[1] were intended to bring clinical leadership 'out of the clinic'. The aim was to place clinicians at the heart of the health service; in commissioning, priority setting and cross boundary service redesign, recommended by many as a way of improving quality of services for patients.[2] In the 2008 NHS next stage review by Lord Darzi on improving quality in the NHS, it was stated that to raise standards, 'there must be a stronger role for clinical leadership and management throughout the NHS'.[3] Despite this, the focus on clinical leadership has been criticised by some as political rhetoric, bound up with the oft-repeated critique on managers in the NHS.[4,5]

It has been argued that the concept of clinical leadership is not clearly defined, with much uncertainty about how it will work in practice, or if clinicians are adequately prepared or inclined to take on clinical leadership (and perhaps more so, followership) roles.[6,7] To date, there has been little evidence of clinical leadership by general dental practitioners (GDPs) in service redesign and quality improvement projects. A problem with the existing literature on clinical leadership is the focus on the traits and qualities of leaders and the dyadic relationship they have with their followers, without paying attention to the wider organisational culture and context that might allow effective clinical leadership to flourish.[6,8]

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## AIM

This article will examine how the post-2013 NHS reforms relate to dental services and how the new structures have led to an innovative, clinically-led quality improvement project in Greater Manchester (GM): 'Healthy Gums DO Matter'. The project will be used to explore current facilitators and barriers to clinical leadership in primary care dental services.

## BACKGROUND TO THE 'HEALTHY GUMS DO MATTER' PROJECT

In order to facilitate increasing clinical leadership, since April 2013 the majority of NHS services have been commissioned by Clinical Commissioning Groups (CCGs). CCGs are local bodies led by general medical practitioners, with technical contract support from NHS England. They are responsible for allocating around 60% of the NHS budget.[9] However, dental, pharmacy and optical services are outside the CCGs remit and are commissioned directly by NHS England, through their regional area teams.[10] Clinical leadership in these services operates through the local professional networks (LPNs), which are embedded within each area team.

The remit of the LPN is to 'provide clinical leadership and facilitate wider clinical engagement at grass roots'.[10] The LPN structure is flexible depending on local capacity and preference, but they share some key characteristics. They are a clinically-led commissioning advisory team, which provide opportunities for clinicians to be involved in service improvement and redesign. They usually contain GDPs, dental practice advisors, commissioners and consultants in dental public health, postgraduate deanery representatives and specialists.

In the summer of 2012 in GM, the local consultant in dental public health established and chaired a 'shadow LPN' in order to provide mentorship and facilitate empowerment of GDPs in preparation for the establishment of the LPN proper in 2013. The aim was to develop their skills and experience so that they might be in a position to take on leadership roles in the future commissioning landscape. The first project the shadow LPN worked on was 'Baby Teeth DO Matter'. Child oral health is a priority for GM, with a caries prevalence in five-year-olds of 41%, compared to 28% nationally.[11]

The 'Baby Teeth DO Matter' project encouraged practices to become community-facing, improve early dental attendance, deliver evidence-based prevention and liaise with local



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oral health improvement teams.[12] Phase one of the project was implemented by 41% of practices in GM and led to 3,453 children accessing care for the first time.[12] Importantly though, the project allowed the identification of a network of local GDPs who were keen to become involved with commissioning and quality improvement projects.

This network enabled the establishment of the LPN proper, as part of GM area team, in September 2013. The GM LPN is now comprised of: the chair (a GDP); a vice chair (a GDP); a senior commissioner from NHS England GM area team; a dental practice advisor (a GDP); a consultant in dental public health; a post graduate studies dean from Health Education England; representatives from the local dental committee (GDPs); and the chairs of the various LPN specialist sub-groups (periodontal, orthodontic, oral surgery, and paedodontic).

Following the experience of working on the 'Baby Teeth DO Matter' project, the clinicians considered what more they could do to improve quality in primary care. They identified the management of periodontal disease as one area where they felt there was a disparity between what is recommended in guidelines produced by specialists[13,14] and what was being provided in general dental practice. A core working group was created by the newly formed LPN to work on improving quality of periodontal care for adults in NHS general practice. The core group was made up of: a local GDP; the chair of the LPN (GDP); a consultant in dental public health; a senior commissioner from NHS England; and a consultant in restorative dentistry.

The core group then invited a wider periodontal sub-group to become involved in the project. This wider group consisted of local GDPs, dental hygienists and therapists who had expressed interest after being involved with the 'Baby teeth DO matter' project. At the first meeting, the practitioners shared the particular difficulties they faced in the management of periodontal disease. They felt there was a lack of guidance on appropriate standards of oral hygiene for instigating non-surgical periodontal therapy and no clearly defined time frames for the expected duration of treatment. Clinical guidelines from the British Society of Periodontology (BSP) recommend detailed pocket charting and root surface debridement (RSD) for all patients with chronic periodontal disease, as indicated by a basic periodontal examination (BPE) score of three or above.[14]

This meant that the practitioners felt obliged to carry out six point pocket charts (6PPC) and RSD, regardless of the patient's oral hygiene and motivation for behaviour change. The practitioners reported that this led to some patients being seen every three months, but with no real hope for resolution of disease because of inadequate plaque control. They felt this offered little to no benefit to the patient and was an inefficient use of NHS resources, but that to not undertake such recommended treatment left them open to litigation.

Another difficulty the practitioners faced was that although monitoring oral hygiene and gingival inflammation is essential for the proper management of periodontal health and disease, both patients and practitioners did not like carrying out plaque scores using disclosing solution as it is difficult to remove and time consuming. They wanted a simplified way to record plaque and bleeding scores, which could be monitored over time and used to assess patient engagement and progress.

## OUTPUT

The 'Healthy Gums DO Matter' quality improvement project has led to the development of a clinician-led 'Practitioner's Toolkit' for the management of periodontal disease in primary dental care. The toolkit contains educational resources for GDPs and periodontal care pathways that are designed to be workable and realistic in NHS general practice, from the point of view of the clinicians themselves. The care pathways provide clear start and end-points to the cycle of treatment and are based on five categories of risk using the BPE scores at initial examination: 'health'; 'risk'; 'disease'; 'advanced disease'; and 'aggressive disease'.

Briefly, care pathways are tools for practitioners to help streamline their decision-making and align the organisation of treatment with recommended evidence based best-practice.[15,16] They provide a structured plan of care detailing the steps to be taken in a course of treatment for any given condition and may involve criteria or time-based progression.[16] Benefits of care pathways are said to be: reduced risk of errors; greater consistency of care; less duplication of effort leading to reduced costs; improved communication with the patient; increased patient satisfaction; and reduced exposure to litigation for the practitioner.[16,17] Criticisms include that care pathways reduce the clinical freedom of practitioners, may not allow for the complexities involved in individual patient care and could reduce patient choice.[16,18]

The toolkit and care pathways developed by the team have a strong focus on oral hygiene, behaviour change and sharing the responsibility for managing this chronic disease with the patient. As research has shown, most of the reduction in the number of diseased sites comes firstly from improvements in oral hygiene following personalised instruction, and secondly by scaling and removal of plaque retentive factors; rather than RSD.[20] The practical implementation of this in the care pathways was to delay the start of formal periodontal therapy (defined as 6PPC and RSD), to allow a greater focus on communication, motivation, behaviour change techniques and personalised oral hygiene instruction – with removal of plaque retentive factors such as gross calculus, as required. Resources for communication, motivation and behaviour change aimed at GDPs are included in the toolkit, which included a newly developed patient agreement and consent form.

Formal periodontal therapy (6PPC and RSD) is delayed until a review three months after the initial examination and prevention phase. Progression to formal therapy is dependent on oral hygiene improvement and "patient engagement", using pre-defined criteria. In order to facilitate recording of oral hygiene outcomes and patient engagement, the 'Healthy Gums DO Matter' group, assisted by periodontal specialists, developed a faster partial-mouth recording system using the well documented Ramfjord's teeth.[21] The modified plaque and bleeding indices are carried out without disclosing solution, previously identified as a barrier to their use by the practitioners. If home care is adequate (<20% plaque score and <30% bleeding score, or greater than 50% improvement in both), the patient progresses to the 'engaging patient' section of their pathway. At this point, detailed pocket charts are recorded and RSD is begun.

If plaque control is inadequate, the patient remains in the 'non-engaging' section of their pathway and clinical time is again directed at personalised oral hygiene instruction, behaviour change and patient motivation. If the patient decides that they do not wish to make any changes to their oral hygiene then they are made aware that their periodontal condition is likely to deteriorate. The patient is then reviewed in three months and the assessment of whether to begin RSD is repeated.

As mentioned above, one criticism of care pathways has been a perceived reduction in clinical freedom of practitioners.[19] This was taken into consideration when developing the new periodontal care pathways. While the thresholds for an engaging patient are defined, clinical discretion could allow any patient to move to therapy, in an engaging pathway, if the clinician felt that was in the best interest of the patient.



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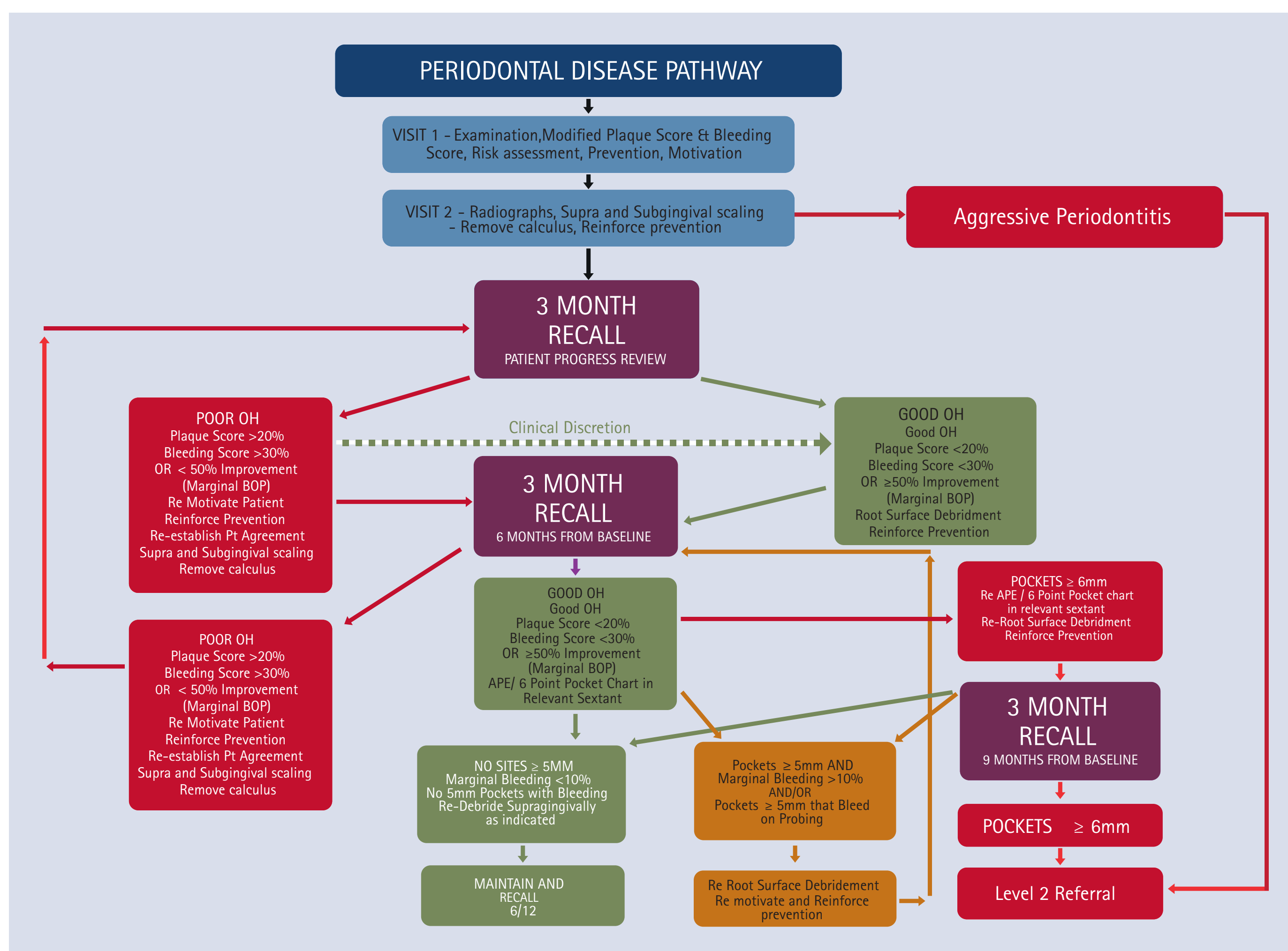


**Fig. 1 Example of the care pathway to be followed by a patient identified as having disease (BPE scores of three).[23] A patient who engages with oral hygiene advice will follow the green section of the pathway. A non-engaging patient will follow the red section of the pathway**

The approach contained within the toolkit has been risk assessed and approved as medico-legally and ethically sound, as it conforms to 'a standard of practice recognised as proper by a competent reasonable body of opinion'.[22] An example of the care pathway for patients in the 'disease' category (BPE scores of three) is shown in Figure 1.[23]

The toolkit and care pathways within it are currently being piloted in ten dental practices in GM. There is on-going evaluation, of both practitioner views and experiences of using this approach, and of patient outcomes. It is hoped that the results of the evaluation will be published once complete.

## DISCUSSION

In their case-study analysis of successful clinical leadership within the NHS, Storey & Holti[6] identified several barriers and facilitators. These will be utilised as a framework to examine the key facilitators and barriers in the 'Healthy Gums DO Matter' project.

### Facilitators

A supportive local environment that allows clinicians to take on roles without their usual remit has been highlighted as being important for successful clinical leadership.[6] It has been suggested that dental practitioners have limited scope for the type of experiential learning and observation which is essential to developing clinical leadership, due to the isolated surgery environment.[24] Through the process of first setting up the shadow LPN and the 'Baby Teeth DO Matter' project, the local consultant in dental public health was able to foster this experiential learning and allow the practitioners to develop skills and knowledge related to commissioning and service improvement, outside of their daily clinical roles.

Ownership of the clinical improvement projects was gradually transferred as the practitioners became empowered, allowing the consultant to increasingly take on more of a mentorship and advisory role. This process of inspiring, motivating, creating engagement and support for change among front line staff is a key feature of the 'transformational' style of leadership which is said to be well-suited to bringing about change within clinical services.[2,25] Lack of ownership by clinicians of 'top-down' quality improvement initiatives has been cited as a major obstacle to transforming clinical services in the past.[26,27]

A common feature in the cases of successful clinical leadership identified by Storey & Holti[6] has been that the initiatives were in line with national policy and strategy. This can also be said to apply in the case of the 'Healthy Gums DO Matter' initiative; care pathways in dentistry were recommended in an independent review of NHS dental service in England in 2009[28] and redesigning services around a care pathway approach is a 'key initial priority' for dentistry, as outlined in Securing Excellence in Commissioning NHS Dental Services.[29] Having a consultant in dental public health and NHS England commissioners as part of the LPN ensures that clinicians are following a model that is supported by national strategy. If local initiatives are aligned with national policy, this then gives freedom to senior managers and commissioners to support innovative projects.

The importance of adequate funding has been found to be another common



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variable between cases of successful clinical leadership.[6] In the case of the 'Healthy Gums DO Matter' project, both the development of the toolkit and care pathways and a one-year pilot of them in ten dental practices were made possible because of a service level agreement (SLA) put in place by local commissioners. This allowed the practices involved to utilise some of their existing unit of dental activity (UDA) contract commitments against the extra time required to be involved in the meetings, training and trialling of the toolkits, data collection and feedback during the pilot. Cases where cross-boundary collaboration was present between clinicians and non-clinical leaders were highlighted by Storey & Holti[6] as being more likely to succeed.

Determination, commitment and political skill on the part of the individuals involved in conceptualising and carrying the project forward are also important factors.[6] Clinical leadership can at times be difficult at a personal level, with the possibility for fraught interpersonal relationships brought about by differing attitudes to change.[6] For a leader to be effective, they require not only ambition, but 'micro-political capability' in order to ensure that they carry others with them.[6,26,30]

In the case of the 'Healthy Gums DO Matter' initiative, although there was a great deal of ambition and drive from the individuals within the core working group, they maintained shared or distributed leadership with the wider periodontal sub-group and GDPs. This concept of leadership highlights the importance of supportive contexts and leaders working together at different levels to effect change.[8] This is in contrast to the out-dated stereotype of a charismatic individual driving a project forward, which may leave clinical leaders without followers.[6,30,31]

## Barriers

One of the barriers noted in the case studies by Storey & Holti[6] were that clinicians may feel unable to contribute to leadership due to the hierarchical nature of health care. For clinicians to lead effectively, a genuine appreciation of the knowledge and experience that all parties contribute is needed, moving away from territorialism[32] and towards 'team working, collaboration and connectedness'.[33] This project could not have had the enthusiasm from general practitioners that it did, if they had not led the project in a meaningful way. This ensured that the toolkit offered a realistic strategy for the management of periodontal disease that answered their previous concerns and difficulties.

In the case of the 'Healthy Gums DO Matter' toolkit, there was initially some resistance from some specialists in periodontology and the project stalled slightly when faced with this opposition. There was concern that some aspects of the 'Healthy Gums DO Matter' toolkit were too far removed from the accepted 'gold standard' for periodontal care. This barrier was overcome due to the determined efforts of the core group in gaining the support of innovative leaders who were open to embracing change. One practitioner effectively conveyed the concept to the BSP at a scientific meeting. Having wider academic support from a position of authority and the relevant specialist society gave the project the renewed vigour to continue.

Time pressures and competing clinical commitments can be one of the main barriers to clinical leadership.[7] Although the LPN structure does allow funding for some elected posts through NHS England area team budgets, initial engagement and attendance at 'Healthy Gums DO Matter' meetings did require GDPs and other colleagues to give up their own time, out of practice hours. They did so because of a genuine altruistic wish to improve the care of both their own patients and with a wider view, the patients of other practitioners. A lack of funding for wider involvement of GDPs beyond defined LPN roles may lead to an over-reliance on 'public service motivation' and donated labour.[34,35] This could represent a barrier to this type of 'distributed' clinical leadership, made up of wider groups of GDPs, beyond the formal LPN.

## CONCLUSION

Clinical leadership in commissioning NHS dentistry and quality improvement is currently effected via the LPNs embedded within NHS England area teams. These networks aim to provide a forum where local GDPs can address concerns relevant to them. This is supported by input from commissioners, clinical specialists, and consultants in dental public health who are able to provide guidance on NHS strategy and direction. A case study of an innovative pilot of a 'Practitioner's Toolkit' containing periodontal care pathways in GM allowed an examination of the facilitators and barriers to clinical leadership in dentistry.

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1. The Department of Health. Health and Social Care Act. United Kingdom; 2012: Online information available at http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted/data.htm (accessed September 2015).
2. Firth-Cozens J, Mowbray D. Leadership and the quality of care. Qual Heal Care. 2001; **10(Suppl I):** 3–7.
3. Darzi A. High Quality Care for All. NHS next stage review final report. London: The Stationary Office, 2008. Online information available at http://webarchive.nationalarchives.gov.uk/20130107105354/http:/www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_085828.pdf (accessed September 2015).
4. Moscrop A. Clinical leadership: individual advancement, political authority, and a lack of direction? *Br J Gen Pract* 2012; **62:** e384–e386.
5. Morrell K, Hewison A. Rhetoric in policy texts : the role of enthymeme in Darzi' s review of the NHS. *Policy Press.* 2013; **41:** 59–79.
6. Storey J, Holti R. Possibilities and pitfalls for clinical leadership in improving service quality, innovation and productivity. London: NIHR Service Delivery and Organization programme, 2013. Online information available at http://oro.open.ac.uk/36270/1/ (accessed Setember 2015).
7. British Medical Association Health Policy and Economic Research Unit. Doctors' perspectives on clinical leadership. BMA. 2012. Online information available from http://bma.org.uk/-/media/files/pdfs/working%20for%20change/shaping%20healthcare/doctors%20on%20clinical%20leadership%20june%202012.pdf (accessed September 2015).
8. Howieson B, Thiagarajah T. What is clinical leadership ? A journal-based meta-review. *Int J Clin Leadersh.* 2011; **17:** 7–18.
9. Naylor C, Curry N, Holder H, Ross S, Marshall L, Tait E. Clinical commissioning groups: Supporting improvement in general practice? [Internet]. 2013. Available from: http://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/clinical-commissioning-groups-report-ings-fund-nuffield-jul13.pdf
10. NHS Commissioning Board. Securing excellence in commissioning primary care. London: NHS, 2012. Online information available at http://www.england.nhs.uk/wp-content/uploads/2012/06/ex-comm-pc.pdf (accessed September 2015).
11. Public Health England. National Dental Epidemiology Programme for England: oral health survey of five-year-old children: A report on the prevalence and severity of dental decay. 2013. Online information available at http://www.nwph.net/dentalhealth/Oral%20Health%205yr%20old%20children%202012%20final%20report%20gateway%20approved.pdf (accessed September 2015).
12. Brocklehurst P, Bridgman C, Davies G. A qualitative evaluation of a Local Professional Network programme "Baby Teeth DO Matter." Community Dent Health. 2013; 30: 241–248.
13. British Society of Periodontology. Young practitioners guide to periodontology. 2nd Edition. 2012. Online information available at http://www.bsperio.org.uk/publications/downloads/Young_Practitioners_Guide.pdf (accessed September 2015).
14. The British Society of Periodontology. Basic Periodontal Examination (BPE). 2011. Online information available at http://www.bsperio.org.uk/publications/downloads/Young_Practitioners_Guide.pdf (accessed September 2015).
15. De Bleser L, Depreitere R, De Waele K, Vanhaecht K, Vlayen J, Sermeus W. Defining pathways. *J Nurs Manag.* 2006; **14:** 553–563.
16. Kinsman L, Rotter T, James E, Snow P, Willis J. What is a clinical pathway? Development of a definition to inform the debate. *BMC Med* 2010; **8:** 31.
17. Schrijvers G, van Hoorn A, Huiskes N. The care pathway: concepts and theories: an introduction. *Int J Integr Care.* 2012; **12:** e192.
18. Rotter T, Kinsman L, James E. *et al.* Clinical pathways: effects on professional practice, patient outcomes, length of stay and hospital costs. Cochrane Database Syst Rev 2010; Online information available at http://onlinelibrary.wiley.



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com/doi/10.1002/14651858.CD006632.pub2/abstract (accessed September 2015).
19. Timmermans S, Mauck A. The promises and pitfalls of evidence-based medicine. *Health Aff* 2005; **24:** 18–28.
20. Chapple I L C, Gilbert A. *Understanding periodontal diseases: Assessment and diagnostic procedures in practice.* Wilson NH (ed). London: Quintessence; 2002.
21. Rams T E, Oler J, Listgarten M A, Slots J. Utility of Ramfjord index teeth to assess periodontal disease progression in longitudinal studies. *J Clin Periodontol* 1993; **20:** 147–150.
22. Bolam v Friern Hospital Management Committee (1957) 2 All ER 118; (1957) 1 WLR 582.
23. Greater Manchester Local Dental Network. Healthy gums DO matter! Periodontal management in primary dental care. Practitioner's Toolkit. 2014.
24. Brocklehurst P, Ferguson J, Taylor N, Tickle M. What is clinical leadership and why might it be important in dentistry? *Br Dent J* 2013; **214:** 243–246.
25. Willcocks S. Leadership theory: implications for developing dental surgeons in primary care? *Br Dent J* 2011; **210:** 105–107.
26. The King's Fund Leadership Review. Leadership and engagement for improvement in the NHS. Together we can. Rowling E (ed). London: The King's Fund, 2012. Online information available at http://www.kingsfund.org.uk/publications/leadership-engagement-for-improvement-nhs (accessed February 2015).
27. Grol R, Grimshaw J. From best evidence to best practice: Effective implementation of change in patients' care. *Lancet* 2003; **362:** 1225–1230.
28. Steele J. NHS Dental Services in England. An independent review led by professor Jimmy Steele. 2009. Online information available at http://www.sigwales.org/wp-content/uploads/dh_101180.pdf (accessed September 2015).
29. NHS Commissioning Board. Securing excellence in commissioning NHS dental services. 2013. Online information available at http://www.england.nhs.uk/wp-content/uploads/2013/02/commissioning-dental.pdf (accessed September 2015).
30. NHS Leadership Academy. Clinical leadership competency framework. 2011. Online information available at http://www.leadershipacademy.nhs.uk/wp-content/uploads/2012/11/NHSLeadership-Leadership-Framework-Clinical-Leadership-Competency-Framework-CLCF.pdf (accessed September 2015).
31. The King's Fund Commission on Leadership and Management in the NHS. The future of leadership and management in the NHS. No more heroes. Rowling E (ed). London: The King's Fund, 2011. Online information available at http://www.kingsfund.org.uk/sites/files/kf/future-of-leadership-and-management-nhs-may-2011-kings-fund.pdf (accessed September 2015).
32. Axelsson S B, Axelsson R. From territoriality to altruism in interprofessional collaboration and leadership. *J Interprof Care.* 2009; **23:** 320–330.
33. Alimo-Metcalfe B, Alban-Metcalfe J. Engaging leadership: Creating organizations that maximise the potential of their people. London: Chartered Institute of Personnel and Development, 2008. Online information available at http://www.cipd.co.uk/binaries/engaging-leadership_2008-updated-01-2010.pdf (accessed September 2015).
34. Myers J. 'Public Service Motivation' and performance incentives: a literature review. 2008. Online information available at http://www.publicservices.ac.uk/wp-content/uploads/publicservicemotivationandperformanceincentives_myersjune2008.pdf (accessed September 2015).
35. Karlsson M. The economics of 'public sector motivation'. A review of selected literature. 2008. Online information available at http://www.publicservices.ac.uk/wp-content/uploads/karlssontheeconomicsofpublicsectormotivation.pdf (accessed September 2015).



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