al., 2006) and a recently completed study investigated how patients view such referrals and what they see as being the main benefits of this aspect of their care (Ryan et al., 2007 In preparation).

More recently this research area has extended into those patients undergoing conventional orthodontic treatment and quality of life has also been assessed in children and adolescents with multiple missing teeth (Laing et al., 2007 Submitted for publication). The impact of such conditions is often underestimated and it is important that patients have the opportunity to put their own viewpoints to those involved in policy making and provision of care.

3. Information provision
One of the most important factors in achieving optimal results from orthodontic treatment is patient co-operation. In order for this to occur, patients need to fully understand the treatment process and what is expected of them and this is clearly one of the most important factors in the informed consent process. A recent study compared two methods of information provision: printed leaflets and a computer based visual presentation. The computer based program showed significantly better information retention than the leaflets and adolescent patients appeared to prefer the computerised form of information provision. Therefore, the recommendations were that information provision using a computer program should be considered in hospitals and orthodontic practices as it appears to be preferable to more conventional information leaflets (Patel et al., 2007 In press).

4. Process of treatment
One issue of concern to most dental patients is how much pain they are likely to experience and a recent collaboration between UCL Eastman Dental Institute and the John Radcliffe Hospital Oxford looked at this very issue (Pringle et al., 2007 In press). The traditional fixed brace system was compared with a new fixed brace system, which is more expensive but purports to cause less pain. Patients completed questionnaires monitoring the pain they experienced in the early stages of treatment and the two systems were then compared. Although, the new system showed statistically less pain, it was doubtful as to whether the differences were large enough to be of clinical relevance to the patients themselves. These findings have important implications when orthodontists are choosing which system they choose to use and the research allows them to draw on the experience of previous patients when making such decisions. There are also economic consequences, which are clearly of importance in the NHS setting.

These are just a few illustrations of the types of patient-centered research, which have been undertaken recently and these examples clearly illustrate the importance of involving patients in research.

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References available on request.
Complex cases

Another article in our series on risk management provided by Dental Protection: this week precautions to consider before launching into a complex case

There can be few of us who have not benefited from the wisdom of hindsight in the course of our clinical career. Spotting the 'problem' patient before it is too late, or drawing back from the procedure which is doomed to fail, or resisting the temptation to provide treatment against our better judgement occasionally derives from inspired intuition or is gleaned from years of hard experience! More predictably it is the result of a conscious decision to take every opportunity to 'test the waters' before committing yourself to extensive or irreversible treatment.

One Step at a Time

An obvious example of this cautious approach arises when treating young children or exceptionally nervous adult patients. Starting a treatment plan with procedures that are as short or simple as possible gives the clinician an opportunity to assess the patient's ability to cope with treatment procedures, before embarking upon longer or more challenging procedures.

Always try to decide on a fall back position during those first appointments so that the situation can be recovered if the patient's cooperation does not prove to be as complete as that which had been hoped for. This can be particularly useful when there are grounds for concern over whether a patient will be able to keep their mouth open, for sufficient periods of time, to enable complex or intricate work to be carried out on one or more posterior teeth.

A similar approach needs to be adopted when complex treatment is deferred while you check a patient's ability to maintain adequate oral hygiene, or willingness to attend for treatment.

Dentures

In denture work of various kinds, there is the obvious advantage that most of the decisions that are taken are also reversible. The try-in stage of a denture is a classic example of this, allowing both the clinician and the patient to assess the various aspects of the denture before jointly committing to the finished product (Fig. 1).

At an earlier stage in the process of denture construction, 'training bases' are another tried-and-tested approach to assessing, for example, how much palatal coverage or lingual pouch/tuberosity extension the patient can tolerate. A proposed change in occlusal height or in tooth position relative to the edentulous ridge and soft tissues can also be tested out in a way which still allows easy and inexpensive modification and adjustment if necessary.

For patients who have a severe 'gag' reflex or intolerance to palatal coverage, one is never quite sure how they might cope with a transition to full dentures, or partial dentures with extensive palatal coverage. A prudent exploratory stage—undertaken before any teeth are extracted—is to construct a 'mock' upper acrylic plate, and to adjust this in stages until acceptable to the patient.

The reline procedure is yet another proven means of establishing whether a denture can be made satisfactory by correcting any deficiencies in the fit surface. Often this can prolong the life of an existing, otherwise satisfactory denture.

Chairside, softrelining and 'tissue conditioning' materials are entirely reversible, but can still yield valuable information about problems with existing dentures, and potential problems that might arise when making new ones.

Denture Clasps

One frustratingly familiar source of dento-legal problems is the visible clasp of a chrome cobalt denture, which the patient discovers for the first time after the finished denture has been fitted. Usually the patient's dissatisfaction is based on aesthetic grounds; sometimes the clasp creates problems with comfort or function. On occasions, the clinician accedes to the patient's wish and removes the offending clasp only to find that the patient can no longer wear a denture which is now hopelessly loose.

It is tempting to believe that there are times when you just can't win. What you can do, however, to head off some of these problems, is to use a black wax pencil (at the design stage) to mark on the tooth it clearly would sit. This gives the patient the opportunity to raise any concerns before the denture is ever constructed.

Temporary Crowns & Bridges

Temporary (provisional) crowns provide an opportunity to preview a proposed tooth length/appearance/colour before proceeding with the final restoration. Despite the relative ease and simplicity of this treatment approach, it seems to be a surprisingly under-used clinical tool when dealing with those patients who clearly have high aesthetic expectations and demands. Quite apart from its intrinsic value as a procedure within the overall process of crown construction, it can allay the concerns of the patient who lacks confidence in the outcome, reassuring them that you are doing everything that you possibly can to secure an optimal outcome for them.

Another very useful 'check' procedure along the same lines is to try in crown and bridgework at the 'biscuit bake' stage of porcelain build-up, letting the patient see how things are progressing, and allowing any adjustments to be made before glazing and finishing the restoration (Fig. 2).

Using temporary (provisional) bridges to try out the shape, size, pontic width and colour of bridge-work is a variation on the same effective technique. A temporary bridge can also provide a timely indication that the proposed bridge abutments are underrun or over-run, and will not allow the insertion of fixed-fixed bridgework without further preparation.

Where anterior bridgework is replacing a denture, which has been worn over many years, problems can arise with speech because of the altered shapes and dynamics of the spatial relationships of the tongue, teeth and palate. The provi-