

first time focuses on rapid data entry for all potential clinical scenarios. Emphasis has been placed on the aetiology of trauma and emergencies as well as the outcome of clinical interventions with the International Classification of Diseases referenced throughout. The entire system has been designed for intuitive use whilst minimising unnecessary data duplication in recording details of facial fractures, soft tissue injuries, infections, hemorrhage and associated injuries. 3D images produced in Cinema 4D Excel™, Poser® and Osirix® allow clinicians to point and click on anatomical regions supplemented by pick lists. Data analysis occurs 'on-the-fly' with realtime generation of reports and summaries for weekly educational meetings. Throughout the patients journey, details may be amended, deleted or scrutinised by senior clinicians from the point of admission to outpatients review.

*Clinical relevance:* The modular, intuitive design of our software will give the clinician a rich source of accurately recorded data for future research/audit at local, regional and national levels. Free copies will be available for distribution.

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### **Therapeutic benefits of TMJ arthroscopy and arthrocentesis: a prospective outcome assessment**

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Patients who fail to respond to routine conservative measures for TMJ related pain, restriction and locking may be submitted to diagnostic arthroscopy or arthrocentesis, both of which are associated with significant therapeutic improvement in 70% or more patients. There is no current data on improvements in mouth opening and lateral deviations achieved during and following arthroscopy. This prospective audit presents 140 patients treated between 2006 and 2008 from one surgeon's practice who have been followed up at least once at 6 weeks following arthroscopy or arthrocentesis.

The patients had a variety of TMJ conditions, but all had joint tenderness. They were assessed pre- and 6 weeks post-surgery for opening, left and right lateral excursions and protrusion in mm measured with calipers. Pain scores were also recorded on 10 cm analogue scales.

Pain scores improved with intervention, from an average pain score of 37.1–16.07 (range 0–100). The improvement in mouth opening ranged from 0% to 78% (some patients had locking or pain with normal opening pre-operatively). Approximately 70% had sufficient improvement for discharge around 6 weeks. Two cases of temporary forehead weakness were seen which resolved within the timescale of the study.

This study shows the improvements in mouth opening and confirms the improvements in pain scores achieved following arthroscopy or arthrocentesis of the TMJ after failure of conservative approaches. Arthroscopy in the hands of a

skilled practitioner can be a useful diagnostic and therapeutic adjunct, which can be used repeatedly with low morbidity.

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### **Day-case surgery for OMFS trauma: experience from our first 100 patients**

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*Introduction:* Following a successful pilot scheme, the routine management of low-energy maxillofacial trauma as planned day surgery cases has been established in our department. We report on our experience of the first 100 patients treated in this way from January 2007 to July 2008.

*Method:* Data were collected prospectively on 100 consecutive patients with maxillofacial trauma whose surgical management was with the intention to treat as day cases. Case-mix, immediate complications and overnight stay rates were recorded.

*Results:* The principal procedures performed were: manipulation of nasal bones (20), ORIF zygoma (20), closed reduction of zygoma (19), orbital floor repair (18) and ORIF mandible (15). In total, 82 patients were treated successfully as day cases. Most unplanned overnight stays occurred following longer surgical procedures performed in the last 5 months of the study period. No immediate or early complications were encountered.

*Conclusions:* Day-case surgery for trauma patients challenges clinical dogma in a number of ways including pre-operative hospitalisation and post-operative observations and/or radiographs. However, this large patient cohort provides evidence that day-case surgery is an efficient and cost-effective method for dealing with high-volume, low-energy trauma. Careful patient selection reduces unplanned overnight stays and our findings provide a template for the wider adoption of this practice by other units.

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### **Treatment of temporomandibular joint ankylosis**

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*Introduction:* Temporomandibular joint (TMJ) ankylosis in children does not only disturb mandibular growth but also hinders facial skeletal development.

*Aim:* The purpose of this study was to review long-term results of TMJ reconstruction with distraction after arthroplasty in young patients with TMJ ankylosis performed under one procedure.