

Oral medicine

This fascinating field combines aspects of medicine and dentistry, as **Philip Atkin** explains

Oral medicine in the United Kingdom (UK) is a hospital based specialty that sits at the interface of medicine and dentistry and uses the knowledge, skills, and training drawn from both disciplines. It is principally outpatient based, with patients being referred from dental specialties, medical and surgical specialties, general dental practice, and general medical practice. Patient management can involve colleagues from gastrointestinal medicine, genitourinary medicine, dermatology, rheumatology, psychiatry and psychology, chronic pain clinics, orofacial surgery, and neurosurgery among many others. Diagnosis of conditions involves working closely with colleagues in pathology, microbiology, and virology, among other specialties.

Patients may present with oral manifestations of systemic disease, with disease primarily of the oral tissues, or with lesions secondary to therapeutic interventions for other conditions. Disease processes may be inflammatory, infective, or neoplastic, and therapy can involve the use of a spectrum of agents, from simple topical drugs to strong systemic immunosuppressive or anti-inflammatory agents, or even simple minor surgery for excision of soft-tissue lesions.

As well as a diagnostic and therapeutic service, practitioners are involved in the teaching of oral medicine to undergraduates, postgraduates in masters and doctorate programmes, specialist trainees, and also to general practitioners as part of continuing professional development. In addition to teaching, the academic aspect of oral medicine involves clinical and laboratory research into the mechanisms of disease, and exploring new therapeutic strategies, often with the assistance of

drugs' researchers. Within the UK, the medical background of specialists in oral medicine means that practitioners are ideally placed to manage and contribute to the undergraduate teaching of human disease and the aspects of medicine and surgery that the General Dental Council expects for undergraduate dental students.

Specialist training in oral medicine in the UK and overseas

In the UK the specialty training of oral medicine is governed by the General Dental Council, and anyone entering training has to have medical and dental undergraduate qualifications. Towards the end of specialist training (a minimum of three years), trainees sit a specialist fellowship examination administered jointly by the four surgical royal colleges in the UK and Ireland. On successful completion of this examination, and a satisfactory report from the postgraduate deanery overseeing the training locally, application to become a registered specialist with the UK General Dental Council is made. At this point a specialist is eligible for senior appointment in a hospital or university setting, typically within a dental teaching hospital.

Europe

In Europe, various countries have different training programmes, but none of them ask for a medical degree in addition to the basic dental qualification. Many training programmes are run via masters, or other higher degree courses offered by dental schools through associated universities. More information for specialist training in Europe can be gleaned from the various national specialist societies, listed on the European Association of Oral Medicine's website.

North America

In the United States and Canada, once again, the principal requirement for specialist training is possession of a dental qualification. In the United States there are specialist training programmes in oral medicine, but clinical practice differs from

that of the UK in that there is a greater emphasis on the dental management of the medically compromised patient. In addition, training programmes in oral and maxillofacial pathology are also available, and the practice of oral and maxillofacial pathology includes the clinical management of patients with orofacial disease, in line with the UK specialty of oral medicine. In the UK and Europe, oral pathology is largely a laboratory based, rather than a clinic based specialty. More information on specialist training in the United States can be found on the websites of the American Academy of Oral Medicine and the American Academy of Oral and Maxillofacial Pathology.

Australia and New Zealand

In Australia, a dental degree is required and a specialist training programme of not less than three years must be followed. There is a specialist stream fellowship exam of the Royal Australasian College of Dental Surgeons, in oral medicine (FRACDS (OralMed)), which is taken at the end of the period of specialist training. Registration of dentists lies with the dental board of the particular state or territory in which the practitioner lives. In New Zealand, after dental qualification there is a combined medical degree and masters degree in dental surgery (MDS/MBChB), and an oral medicine specialist examination for accreditation.

The routes through specialist training and accreditation in oral medicine are many and varied, and accurate information for each country must be sought from national dental associations or dental registration bodies. Not all countries, including those in Europe, recognise all dental specialties—although this does not prevent practitioners from developing training programmes and demonstrating expertise in the field.

Clinical practice of oral medicine

In the UK, probably the three most common lesions or conditions seen in outpatient clinics are



oral mucosal ulceration; possible malignant lesions (for example, mucosal white patches); and chronic orofacial (non-dental) pain.

Oral ulcers and facial pain

Oral mucosal ulcers can be manifestations of nutritional deficiency states, malignancy, or gastrointestinal disease such as Crohn's, ulcerative colitis, coeliac disease, or malabsorption states. They may represent dermatological disease such as lichen planus; a lichenoid-type sensitivity reaction to prescribed drugs such as antihypertensives or non-steroidal anti-inflammatories; or be idiosyncratic reactions to drugs, such as the occasional severe, deep mucosal ulcers associated with a drug such as nicorandil, used for the management of angina. Oral ulcers may be associated with infective disease such as herpes simplex virus, HIV and AIDS, and tuberculosis. Malignant or premalignant lesions may present as white patches or ulcers, or mucosal growths, and often require mucosal biopsy to distinguish between sinister and innocent causes. Chronic orofacial pain also runs across a wide spectrum from mild self-limiting muscular and joint pains to severe neuropathic pains such as trigeminal neuralgia that needs to be managed with anticonvulsant drugs, and occasionally joint care with specialist chronic pain teams or neurosurgeons.

Identifying lesions

Given the wide possible aetiology of lesions that appear similar, a careful and detailed medical, dental, social, and drug history is essential as well as thorough clinical examination and the use of additional investigations such as blood tests for haematinics, inflammatory indicators, immunological markers, and pathogen antibody titres as well as swabs, smears, saliva samples, mucosal biopsy, and radiological investigations, for example, plain films, sialography, and scintigraphy.

A typical week in the life of a consultant and senior lecturer in oral medicine

In the UK the contracted work of a hospital consultant is separated into time devoted to direct clinical care and time devoted to supporting professional activities. The direct clinical care, which takes up 70-75% of the week, can be further separated into time spent face to face with patients in clinic, which usually equates to around five half day clinics, and the associated clinical work that does not involve patient contact, such as processing and triaging referral letters, writing letters to referring general practitioners, dentists, and other clinicians after outpatient consultations, and reviewing blood test results,

pathology and microbiology reports, radiographs, and so on. There may also be multidisciplinary meetings between professionals looking after patients, without the patient being present.

Working with a team

In the clinic there will be junior hospital staff such as senior house officers who are in general professional training programmes; there could be registrars in higher specialist training as well as colleagues in the staff and associate specialist grades, who contribute greatly to patient care. Because oral medicine is principally a dental hospital specialty there will usually be dental undergraduate students present who clerk and examine patients and present their findings to more senior staff before discussing provisional diagnoses and treatment options. In some dental schools there may well also be postgraduate students (often from outside the UK) who are completing masters degree programmes in oral medicine.

Outside the direct clinical care sessions, a consultant will be involved with the management and administration of the clinics, and hospital functioning in general (audit, clinical governance, health and safety committee), as well as teaching and mentoring junior staff and trainees. There will be committee work and meetings about patient waiting times and clinic profiles of new and review patients.


Teaching role

Typically, consultants will prepare teaching material for senior house officers' tutorials, postgraduate teaching for general practitioners and dentists, and will mentor specialist registrars as well as contributing to the university teaching in oral medicine. NHS consultants are often involved in preparing examination material for dental undergraduate examinations, and may act as internal examiners within their own university, as well as acting as external examiners at other universities in the UK. Again, because of their medical background, consultants in oral medicine often oversee the organisation, delivery, and examinations for the human disease or medicine and surgery teaching for dental undergraduates as required by the General Dental Council within the undergraduate degree programme. Quite often, consultants work as examiners for the membership exams of the surgical royal college (membership diploma of the Faculty of Dental Surgery) taken by dental graduates after a period of general professional training and before entering specialist training. In addition to all this, every registered doctor and dentist has a duty to make sure they are up to date with new developments in their field, and will regularly read medical and dental journals or attend specialist

society meetings to keep abreast of changes in medicine and beyond.

For a university senior lecturer, honorary consultant, and specialist in oral medicine the balance of demands is slightly different. The major thrust will be clinical and laboratory research leading to grants and research publications and presentations to national and international research groups. There will also be a higher involvement in the running of the university programmes and administration—all of this alongside a reduced clinical commitment, although similar in breadth to that of hospital colleagues.

Undergraduate involvement in oral medicine

The involvement of dental undergraduates in oral medicine is obvious, but there is increasing scope for medical undergraduates to become involved and to have some experience of the specialty at an early stage in their careers. Medical undergraduate courses are always evolving and changing, and increasingly there are opportunities to spend a block of time in special study modules exploring aspects of medicine. Oral medicine, because of the large amount of systemic disease that is involved—gastrointestinal disease, dermatology, immunopathology, and rheumatological associations of oral disease—lends itself well to a special study module in the undergraduate medical course. The module may take the form of time spent shadowing a specialist, or small research projects related to oral manifestations of systemic disease, or similar patient audits. From my own experience of an undergraduate medical course, I know that only a tiny fraction of the total time spent is related to oral disease, but the orofacial tissues can act as a unique window into disease processes happening elsewhere in the body, and time spent in oral medicine will never be wasted time. 

Philip Atkin *consultant and honorary senior lecturer in oral medicine, Cardiff Dental Hospital and School, Wales*
atkinpa@cardiff.ac.uk

Further information

- General Dental Council (www.gdc-uk.org)
- British Society for Oral Medicine (www.bsom.org.uk)
- European Association of Oral Medicine (www.eaom.net)
- American Academy of Oral Medicine (www.aaom.com)
- American Academy of Oral and Maxillofacial Pathology (www.aaomp.org)
- Royal Australasian College of Dental Surgeons (www.racds.org)
- Dental Council of New Zealand (www.dentalcouncil.org.nz)