

# ODC

Oman Dental College كلية عُمان لطب الأسنان

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## *Oman Dental College*



*31st May to 3<sup>rd</sup> June 2015*

*Self-assessment comments and analysis according to the guidelines of:*

*The Association for Dental Education in Europe (ADEE)*

*with the visitors' comments and recommendations.*



The Association for Dental Education in Europe (ADEE) was founded in 1975 as an independent European organisation representing academic dentistry and the community of dental educators. Since then, ADEE has played an important role by enhancing the quality of education, advancing the professional development of dental educators and supporting research in education and training of oral health personnel.

The evolution of the Association is set out in ADEE document “The First 25 Years”. ADEE brings together a broad-based membership across Europe comprised of dental schools, specialist societies and national associations concerned with dental education. ADEE is committed to the advancement of the highest level of health care for all people of Europe through its mission statements:

- To promote the advancement and foster convergence towards high standards of dental education.
- To promote and help to co-ordinate peer review and quality assurance in dental education and training.
- To promote the development of assessment and examination methods
- To promote exchange of staff, students and programmes.
- To disseminate knowledge and understanding on education.
- To provide a European link with other bodies concerned with education, particularly dental education.

ADEE members are European University Dental Schools, Specialist Societies or other National Dental Bodies concerned with or related to dental education.

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<sup>1</sup> Professor Andrew Self OBE sadly passed away during the preparation of the self-assessment document

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# Chapter 1 – Introduction

## Overview:

The visitors are extremely grateful to the Dean, Dr Rahul Arora and the Chair of the Board of Directors, Dr Mohamed Al Ismaily and equally to the Faculty and all Staff at Oman Dental College (ODC) for their welcome and hospitality during the ADEE visit. We wish to thank the Dean and all the staff and students at ODC for the transparency, honesty, openness and enthusiasm of their participation during the visit

The ADEE visitors were impressed with both the current academic and the general administrative governance structures at ODC. The organisational structure gives ODC both autonomy, to allow development, and the opportunities for cooperation necessary for an outward looking organisation. The recent developments in dental education and infrastructure are of a high standard and ODC is privileged to have the support of the Ministry of Higher Education (MoHE) for these initiatives.

ODC has a significant role to play in the country's health sector, and is producing high quality and competent dental professionals. Remarkable progress has been made in all aspects of the curriculum since ODC was established in 2006, due to the active and committed Dean and the staff. Administration is centralised, thus the Dean's role is decisive in overcoming constraints and promoting the aims and objectives of ODC as it continues to search for excellence as an educational institution. To this end, the future activities of the College (School) are aligned according to the key strategic intents within ODC's 2013/18 strategic planning cycle.

Staff members are to be congratulated for their educational proficiency and professionalism, as well as for their high morale, dedication and commitment to activities for the School's development. They are highly focused on what they wanted to achieve and are justifiably proud of their School, its activities and its recent progress. Communication and relationships among staff members and across the various courses appear very positive and constructive. ODC attracts high quality, ambitious and focused students, due to its entry requirements and selection process. Students were happy, satisfied, appreciative and highly motivated.

ODC was established as a legal and single entity in May 2006 as a stand-alone private higher education provider, approved by the Government of the Sultanate of Oman, licensed, regulated and supervised by the Ministry of Higher Education (MoHE). ODC is the first and currently the only dental school in the Sultanate of Oman. The College is consequently not part of the single public nor eight private universities currently in the Sultanate of Oman. ODC has close relationships with the two existing medical schools, with a number of ODC's part-time visiting basic science faculty coming from these medical schools. The College clinical facilities are also licenced by the Ministry of Health (MoH) for its provision of clinical care to the public.

Oman currently has 877 registered dentists, comprising 187 Omani and 690 expatriates, of whom 571 work in private practice with the remainder employed with government agencies including the Ministry of Health, Royal Oman Police, Ministry of Defence and Diwan of the Royal Court (MoH data<sup>2</sup>). The current total population in Oman is 3.86 million, comprised of 2.2 million nationals (56.3%) and 1.7 million expatriates (43.7 %). In the governmental sector there is a ratio of 0.8 dentists per 10,000 population with 1.5 dentists per 10,000 population in the private sector and an overall ratio of 2.3 dentists per 10,000 population.

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<sup>2</sup> Ministry of Health Annual Health Report 2013 available at <https://www.moh.gov.om/en/web/directorate-general-of-planning/resources>

ODC was established in June 2006 in Muscat, the capital of the Sultanate of Oman. The College commenced activities in a temporary building and moved to its current permanent site in January 2011. The College campus is located on MoH land, adjacent to a government Health Centre and close to a tertiary care hospital. The College consists of a state of the art 5-storey purpose built facility of about 6,700 m<sup>2</sup>, housing lecture theatres, seminar rooms, training laboratories, student facilities, administrative and faculty offices and a 67 chair outpatient clinical dental teaching hospital and day care theatre suite.

ODC offers an undergraduate programme leading to the award of the Bachelor of Dental Surgery (BDS) degree. The BDS degree programme at ODC consists of a five year academic programme preceded by a one year pre-dental foundation programme. Students are usually admitted to the College on the basis of merit following the award of an Oman General Education Diploma or equivalent secondary school leaving qualification. A number of students are exempted from the pre-dental foundation programme, usually on the basis of an IELTS score of at least 6.0 or equivalent, and are admitted directly into the five year academic programme.

The College admitted the first cohort of students at the start of the Academic Year 2006/7 with its first cohort of 47 graduates qualifying as dental surgeons at the end of the Academic Year 2011/12. Currently the College has 366 students registered over the foundation and subsequent five year BDS academic programme. All ODC graduates who have sat the mandatory MoH Prometric examination for clinical licensing were successful. In addition, a significant number of ODC graduates have been successful at the MFD/MFDS/MJDF examinations of the Royal Colleges of Surgeons of the UK and Ireland at first attempt.

The College benefits from a high level International Advisory Panel (IAP). The IAP assesses and advises ODC on all aspects of its operations including its infrastructure, strategic planning and the development of its BDS degree programme that encompasses quality, processes, international equivalence and professional standing to ensure that the student learning experience through the BDS degree programme offered is appropriate in content and design, contemporary in approach and meets high international standards.

With the College Mission to provide an undergraduate BDS degree programme of the highest standards taking into account contemporary approaches to dental education internationally, ODC has recently moved to an European academic affiliation with the University Complutense of Madrid (UCM) and in keeping with a competency outcome based approach, the College is also an associate member of the Association for Dental Education in Europe (ADEE).

Responsibility for mandatory institutional and programme accreditation lies with the Oman Academic Accreditation Authority (OAAA). Accreditation by the OAAA is a two stage process consisting of Stage 1 formative Quality Audit followed by summative Stage 2 Institutional and Programme Standards assessments. ODC has successfully undertaken Stage 1 Quality Audit with good reporting and is currently preparing for Stage 2 of OAAA accreditation.

All higher educational institutes are expected to follow the Requirements for Oman's System of Quality Assurance (ROSQA) that include the National Qualifications Framework (NQF), in which an undergraduate degree is awarded at Level 4 following a normal minimum period of four years of study and 480 credit points or 120 credit hours. The five year BDS academic programme of studies at ODC consequently meets and exceeds the ROSQA standards in this area with the equivalent of 600 credit points or 150 credit hours.

ODC receives regular referrals from MoH primary care health centres in the Muscat capital area for extra-oral patient imaging and also for patient care. The College also receives



referrals from private practices, in particular for endodontology, oral surgery, implantology and orthodontics.

With its desire to follow and participate in the growing continuum of ADEE best practice, ODC therefore invited an ADEE Dental School Visit to record achievement to date and to suggest actions for future improvements with a view to enhancing the profile of ODC graduate standards internationally and in particular with reference to the European Union (EU) and European Higher Education Area

### **ODC Analysis and Comments:**

- The College outpatient clinical dental facilities significantly increase accessibility to quality oral and dental care for the nation and support and augment that of government oral healthcare providers.
- ODC provides dental care for Omanis and expatriates without levying treatment fees other than for laboratory items at cost and is under a significant financial burden without any form of government funding towards the provision of dental care.
- This is a unique example of a private-public partnership with ODC's privately funded facilities built on MoH land.
- ODC actively supports the MoH as evidenced by its accommodating a significant part of the Al Nahdha dental outpatient department for 10 months and the ongoing acceptance of referrals.
- ODC provides oral healthcare to both Omani's and expatriates and offers comprehensive clinical care, including orthodontics, prosthodontics and implantology, over and above that available in the MoH.
- The new academic affiliation agreement with UCM is a significant and positive strategic development.
- ODC is required to submit its Self-Assessment Document to the OAAA for Stage 2 Institutional and Programme Accreditation in December 2015/January 2016 and considers the ADEE School Visit as an important part of its Quality Assurance processes.
- The dentist per population ratio justifies the need for more dentists in Oman and also for Omanisation in the dental profession. This supports the rationale for ODC to exist and contribute to national development in oral healthcare provision.

### **ADEE Panel Comments:**

- i. The commitment of the MoHE is clearly supportive of the objectives and the aspirations of ODC and its faculty and is supportive of the students, not least through scholarships.
- ii. It is clear that patients' treatments are subsidised from student tuition fees and that, contrary to other similar institutions, the fee level has not changed for over 10 years. This places significant financial restrictions on an institution whose primary role is as an educational training institution.
- iii. It should be recognised that a significant number of the population, expatriates along with Omani nationals, are provided with a high standard of dental care at a nominal cost by ODC. A small administrative charge is levied for each patient to register each year and a nominal fee is charged to cover administration at each visit thereafter.

- iv. ODC is an excellent example of a private/public partnership which is increasingly delivering a high standard of dental graduate who will go on to serve the oral and dental healthcare needs of the community in Oman.
- v. The panel recognise the exceptional value of the affiliation of ODC with the University Complutense of Madrid (UCM) and the achievements resulting from consultation with its IAP and their expert consultant advisor. This provides an excellent example of good practice.
- vi. ODC is achieving its objective of producing high quality dental practitioners who can support the oral health needs of the local community and Oman in a wider context. The panel understands that the majority of ODC graduates are staying and practising in Oman and ODC is thereby making a significant contribution to the Omanisation of the dental profession. Being the only dental school, ODC is perfectly placed to build on this and continue to make a significant contribution to both dental healthcare provision and succession planning for academic educators and researchers to support future dentists both at undergraduate and postgraduate levels.
- vii. ODC's location supports easy access for students to other health institutions which addresses their curriculum needs.
- viii. ODC sets high standards and this is clearly demonstrated in the well prepared and comprehensive ADEE Self-Assessment Document. The Visit, to this excellent educational institution, provided the Panel with an even better understanding of the aspirations and achievements of ODC and its staff.
- ix. ODC is populated by an enthusiastic and committed Dean, faculty and staff and delightful, enthusiastic and engaging students, who are all a credit to this educational institution.
- x. The Panel were informed that a number of enthusiastic general dental practitioners (GDPs), who work in MoH primary health centres until 2.30pm and who have been approved by the MoHE as faculty are not permitted by the MoH to attend ODC after their official working hours to provide clinical supervision for students. Apparently the MoH regard these dental practitioners as performing private practice, when working at ODC instead of recognizing their role as clinical teachers and educators who support the dental students – an arrangement which would be mutually beneficial and is normal at most dental schools. At ODC, the role of these GDPs is the clinical supervision and teaching of its students and they do not undertake private practice.
- xi. The Panel were informed that ODC has invited MoH representatives to attend the BDS V Final Examination with the External Examiners in order to independently verify standards with a view to the automatic licensing of its graduates. To date there has been no MoH representation. The ODC graduate pass rate for the MoH clinical licensing examination is close to 100%.

## **ADEE Panel Recommendations:**

- i. The Panel support the importance of ODC, as the only dental school in Oman, being viewed primarily as an educational teaching institution rather than being treated as a private dental practice, as it strives to produce a high standard of patient-centred care by a high calibre of dental graduates. The Panel understands that at present there is no recognition or allowance for the existence of ODC as an educational/academic institution in the current MoH regulations. Such recognition would be valuable to all stakeholders and promote further development and progress of ODC and Dentistry in general in Oman.
- ii. The Panel recommends an urgent review of the level of tuition fees to take into account the increasing financial demands impacting on this dental teaching institution to enable it to maintain its standards and to progress further.
- iii. The Panel understands that there remains a high caries prevalence rate in Oman. As the only dental teaching institution, the Panel would recommend that ODC is well-placed to play a significant role in the prevention of oral disease in the local community and more widely in Oman.
- iv. The Panel believe that it is important to recognise that patient treatment contributes a significant part of the training and education of dental students, to enable them to qualify as 'Safe Beginners'. It is important to also recognise that the treatment provided by students and faculty is of immense benefit to both the MoH and MoHE as well as to the population of Oman.
- v. The Panel would recommend wider co-operation with ODC from other stakeholders. This can only be of benefit to the future training and education of young dentists and other dental healthcare workers and in turn lead to further improving the standard of oral healthcare provision in Oman.
- vi. The process for clinical licensing of faculty employed at ODC seems laborious and bureaucratic. The Panel were informed that Dental Specialist license examinations are only held 4 times/year and are sometimes postponed. As occurs in many other countries, the Panel would recommend that individuals working within ODC premises, once approved by the MoHE as faculty, should not be required to go through the clinical license examinations. ODC dental graduates are required to take clinical licensing examinations unlike their medical counterparts who graduate from the local medical colleges in Oman. The Panel would suggest that dental graduates should be treated equally to medical graduates and be automatically clinically licensed in Oman upon graduation from ODC. This proposal is underpinned given the high pass rate of ODC graduates for the MoH clinical licensing examination and in the growing successful number of ODC graduates in the MFDRCSE examinations.

## Chapter 2 Curriculum in General

### Overview:

The ODC Mission Statement clearly defines the fundamental purpose of ODC. It describes why it exists as an educational establishment and how it meets ODC's strategic intent as the only dental school in Oman:

*"To provide quality dental education of the highest international standards and contribute towards the progress and development of national oral healthcare facilities through the training of skilled, competent, ethical, and caring dental professionals."*

The strategic direction of ODC is defined through its Vision:

*"To excel internationally and particularly in the Middle East as a prestigious institute and centre of reference for dental education through the utilisation of modern technology, an evidence-based curriculum and contemporary techniques that nurture skilled and caring dental professionals who value lifelong learning and fulfil patient expectations".*

The Values of ODC aim to strengthen the provision of and excellent dental workforce in Oman:

*"The ethos of the College is expressed through its Values, namely the three Latin words Opus (Work), Discere (Learn), Credo (Believe). These values are instilled into students on admission to the College and throughout their programme of studies in preparation for their future professional lives and careers."*

The BDS program is delivered over 5 years, consisting of a minimum of 35 weeks of learning and teaching over two semesters each year.

At ODC, student contact learning, which includes student total workload, is expressed through its Curriculum Framework both as hours as well as European Credit Transfer System (ECTS) credits. Each 25 hours of student workload attracts one ECTS unit, with a requirement for 60 ECTS credits in each academic BDS year of study and a total of 300 ECTS credits to graduate. When mapped to the ROSQA NQF this is equivalent to 600 credit points above Level 4.

The ODC 2013/18 strategic planning cycle has adopted a number of key strategic intents:

- To align its curriculum with the ADEE's *"Profile and competences for the graduating European dentist – 2009 update"*<sup>3</sup>.
- To align with the ECTS, whilst mapping to the national ROSQA OQF Level 4.

The ODC curriculum framework consists of 'Core Modules', 'Courses' and 'Subjects' with the following hierarchy:

Core Modules include: Foundation; Basic Sciences; Allied Sciences; Medical Sciences; Clinical Dentistry. Courses contain one or more subjects that for the BDS academic programme together provide progressive integrated learning themes across the core modules. Subjects are specific learning units that contain learning objectives, outcomes / relevant competences, learning methods and assessment. However, courses rather than a

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<sup>3</sup> Profile and competences for the graduating European dentist - update 2009 in Eur J Dent Educ 14 (2010) 193–202

departmental approach to teaching and learning drive the objective of delivering an integrated approach to undergraduate dental education at ODC.

### ODC Analysis and Comments:

- The positive change of academic affiliate to the UCM, a mainstream European university, is in alignment with the mission, characteristics and overall philosophy of ODC.
- ODC has adopted a curriculum structure in keeping with that of the academic affiliate that incorporates and reflects a hierarchy of core modules, courses and subjects.
- The curriculum has vertical, horizontal and spiral integration but the College recognises the need to develop this area further whilst addressing student learning needs in Oman.
- The blueprinting of the summative final assessment in BDS V prior to graduation evidences in a traceable way competence achievement to affirm compliance with the *“Profile and competences for the graduating European dentist – update 2009”*.
- ODC intends to also map its curriculum to the UK GDC in its *“Standards for Education 2012 and “Preparing for practice”*.
- ODC recognises the importance of developing some of its own supporting competences and acknowledges that this is a process which will occur over time with input and assistance from the academic affiliate as part of its staff development processes.
- Earlier clinical contact with patients would be ideal and enhance spiral integration further but is not practical in the Oman context as students require significant time in the preclinical years to assimilate language and academic learning in an international context.
- Discontinuation of outreach clinical teaching is not positive for student learning but is beyond ODC’s control.
- The barring of MoH GDP’s from clinical teaching and supervision of students, despite being approved as faculty by the MoHE is viewed as a regressive approach to student clinical learning.
- Student progression rates are favourable and progression from one BDS year to another or graduation includes affirmation of appropriate standards in the final summative examinations by external examiners.
- Further enhancement to the website has taken place to enable online applications from students not applying through the HEAC.
- Student re-registration for enrolment for each BDS year of study has been facilitated online through the College website.

### ADEE Panel Comments:

- i. The Mission, Vision and Values of ODC are clearly expressed - they are well incorporated within the learning and teaching environment in the College. The curriculum is well formulated including clearly defined learning outcomes. ADEE welcomes that ODC embraces and follows the ADEE ‘Profiles and Competence’ guidelines which are clearly mapped to the learning outcomes in their curriculum.

- ii. The five-year BDS curriculum includes early years encompassing basic and medical sciences, and the final three years focussing on clinical dentistry. However, there are also complex but well-planned areas of vertical, horizontal and spiral integration, throughout the programme of training, across the many themes. This is demonstrated throughout the ODC Self-Assessment Document under the headings *'Integration in the Curriculum'*.
- iii. There is clear evidence of commitment and dynamism across the School in their efforts to achieve the objectives of a high standard of education and training for their students. There are efforts being made to enhance curriculum development through a variety of avenues. Close cooperation is demonstrated generally across the different courses both within dentistry and its related subjects. There is, equally, very good engagement from colleagues providing the human disease components of the programme and this co-operation appears to work well.
- iv. Curriculum development is driven through the Academic Council and its subcommittees. There is evidence that students are involved in the process. It is clear to the Panel that the international contacts through the Consultant Advisor, the IAP and affiliation with UCM have been pivotal to enhancing curriculum development.
- v. There is more evidence of increased early introduction to clinical practice. This will be introduced in BDS II in the near future. The curriculum covers the opportunities required of a 'Safe Beginner' on graduation - engendering an ethos in new graduates of the importance of graduation being a springboard for Continuing Professional Development which underpins the concept of Life-long Learning.

#### **ADEE Panel Recommendations:**

- i. The panel would support continuing efforts to involve students in patient contact earlier in the BDS programme to enhance their efforts and achievements in balancing the basic and medical sciences with aspects of clinical dentistry as early as is achievable. This can only be of value in meeting the requirements of the students' aspirations to be future dentists in general practice or in a specialist area of dental practice.
- ii. There is a demonstrable positive emphasis on integrated dental care as ODC does not have defined departments. This in turn strengthens the efforts to support Vertical, Horizontal and Spiral integration. The panel would encourage the staff to build on this very good basis of curriculum/course integration. This is a great advantage for a well-integrated approach to the education and training of young dentists.
- iii. The Panel believes that it would be of value to map the BDS curriculum learning outcomes to the UK regulatory body, the GDC's 'Preparing to Practice' Domains. The Panel understand that this will be undertaken in future and will further enhance their benchmarking approach within the ODC's Quality Management System.
- iv. The panel would recommend revisiting the long-term initiative of developing dedicated outreach facilities to support an increase in community contact, with appropriate faculty support and quality management processes in place linked closely with the policies and procedures already in place in ODC.

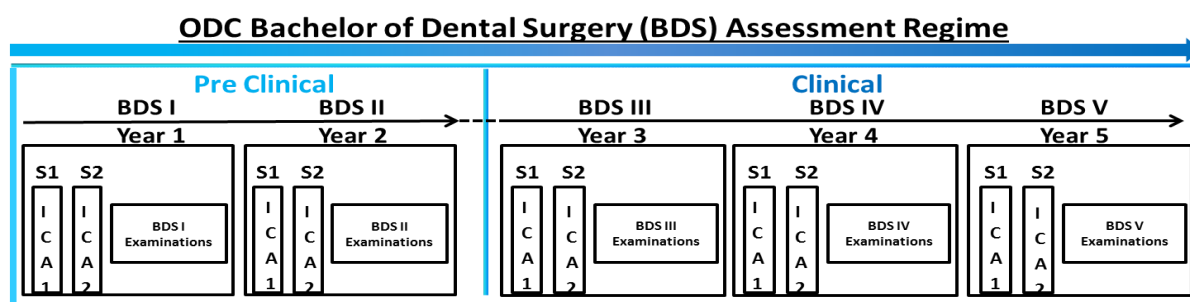


# Chapter 3 Curriculum Content and Methods

## Overview:

The ODC curriculum is being rearranged to fully align and integrate with the ADEE “*Profile and competences for the graduating European dentist – update 2009*”. Blueprints of competences have been created for each subject and are being collectively summated. Supporting competences can be considered synonymous with learning outcomes. Competence achievement is accomplished primarily through continuous assessment for all courses and subjects and with oversight by external examiners for final summative examinations. ODC has adopted an average of 1500 student total workload hours per annum with one credit per 25 workload hours. Students are required to achieve 60 ECTS credits to progress to the next year and 300 ECTS credits to graduate.

ODC has worked hard to provide a robust structured approach to monitoring the progress of their students through carefully planned and standardised assessments.



### Assessment and Examination Process

- Assessment:** The process to determine student competency throughout and at key points in the academic BDS programme. This includes formative and summative assessment (In-Course Assessments (ICAs) and final BDS examinations). Assessment methods include written, objectively structured clinical examination (OSCE)/objectively structured practical examination (OSPE), clinical gateways, clinical case report and presentations.
- Formative Assessment:** Formative assessment is used to assess understanding during the learning process to improve student attainment and does not influence grades or progression. Formative assessment also provides valuable feedback to students and faculty throughout the learning process.
- Summative Assessment:** Summative assessment is used to assess achievement and competency and is consequently used to determine if a student should progress to the next BDS academic year or in the case of BDS V, Year 5, to graduate. Summative assessment consists of ICAs and final examinations as given below. Summative ICAs are also used to provide feedback to students and faculty during the learning process. Summative assessment methods include written, OSCE/OSPE, clinical gateways and clinical case report.
- Courses and Subjects:** All courses comprise of subjects. In the main, subjects are individually examined in BDS I and BDS II and verify single subject knowledge. Clinical courses are assessed over BDS III, BDS IV and BDS V in order to verify cross subject and course understanding. The BDS V final professional examination assesses competency across dentistry as a whole. Courses that cross a number of BDS years are each assessed through summative end of year final examinations and also again in the final year in the BDS V final professional examination.
- BDS Examinations:** Summative BDS final professional assessments, usually end of year, that must be separately passed, including any components (written, OSPE/OSCE, case report) as applicable, as a requirement for progression to the next BDS academic year or to graduate.
- In-Course Assessment (ICA):** In-Course Assessment is summative assessment occurring during each subject and course that contributes to the final mark and grade in the final summative subject/course examination in a particular BDS academic year. There are usually two ICAs per subject or course per year. ICA 2 for BDS V is taken as the mock final professional examination.
- In-Course Assessment Outcomes:** ICA results, which are not pass/fail, are expressed numerically as outcomes with descriptive narratives: 5 = Exceeds Standard (80% & above), 4 = Above Standard (70% - 79%), 3 = Meets Standard (60% - 69%), 2 = Just Meets Standard (50% - 59%), 1 = Below Standard (less than 50%).
- Final Subject/Course Assessment Grading Standard:** Determined by 40% ICA + 60% final or professional examination. Grades: A & above = 80%, B = 70% - 79%, C = 60% - 69%, D = 50% - 59%, F = below 50%. A single resit opportunity is permitted per final assessment and failure of this will require a full repeat of that academic year.
- Award of Distinction:** Grade A in at least 5 BDS final assessments at first attempt leads to an award with distinction. Grade A in at least 4 BDS final assessments leads to an award with honours.
- Clinical Assessment:** BDS III, IV and V students must, in addition to completing the above assessments, be judged as safe and clinically competent. Safe to practise clinical assessment is a judgment made by the clinicians. BDS III and IV students are also required to pass the respective 'Introduction to Clinics' clinical gateways, Endodontic and Prosthodontic Dental Skills gateways assessments prior to treating patients.
- Objective Structured Clinical Examination/Objective Structured Practical Examination (OSCE/OSPE):** An OSCE or OSPE, including non clinical, that may form a part of Summative Assessment.
- BDS V Final Professional Examination:** A comprehensive assessment of student knowledge, skills and understanding to evidence competency in dentistry. This is assessed through a written paper, OSCE, submitted clinical case report. Also requires the student to submit a summary portfolio of clinical cases completed.

Depending on the nature of the examination, components of summative final examinations include:

- A written paper, consisting of single best answer multiple choice questions, extending matching questions and short answer questions
- An Objective Structured Practical Examination (OSPE) or Objective Structured Clinical Examination (OSCE)
- Clinical Case Report and Presentation



A pass in each BDS summative final examination is required before consideration of in-course summative assessment marks in determining the overall mark and grade for each subject.

All Omani or expatriate dentists who wish to practice in the private sector or the Ministry of Health are required to be licensed by the MoH and there is no separate independent professional statutory regulatory body for this purpose. MoH licenses are issued either for general or specialist practice with a general licence provided following successful completion of a Prometric online written examination followed by a viva voce examination

## ODC Analysis and Comments

- Whilst ODC has adopted the ADEE supporting competences as a benchmark, it is envisaged that in time the College will also develop a number of its own supporting competences with input and guidance from the academic affiliate, UCM.
- The College plans to work closely with support from its academic affiliate, the UCM, to refine its methodology for the calculation and use of ECTS.
- As part of clinical competency assessment students are required to submit a clinical portfolio detailing care plans completed and separately items of clinical care completed that fall outside of care plans. This is to ensure student attainment of a wide range of clinical competences across all dental disciplines on graduation.
- Whilst emphasis on clinical competency is presently through completion of care plans ODC plans to also stipulate a minimum number of items of care that need to be provided across care plans to ensure adequate and appropriate student clinical experience prior to graduation.
- An element of Problem Based Learning (PBL) has been introduced in the Human Structure course and the intention is for PBL to be further introduced into other courses as part of curriculum development.
- The use of ECTS credits and its mapping to ROSQA is viewed as an important step in evidencing alignment of the ODC curriculum to EU standards, as well as to the Oman Qualifications Framework. The use of ECTS will assist in curriculum refinement and possibly in time with the increased mobility of ODC graduates outside of Oman and in the region.
- The introduction of Office 365 (O365@ODC) is viewed as a positive development towards enhancing student learning with easy access to lecture content and potential for greater interactive between students and faculty. Students and faculty have been provided with induction and training sessions for O365@ODC and given this facility was only launched in December 2014, further uptake is expected by all users. However issues with Internet bandwidth, principally due to high service provider costs are seen as a limitation.
- The faculty are encouraged to utilise the VLE as a learning tool in a more proactive manner in order for it to achieve its full potential as an educational method. Training sessions have been provided and further training is planned. It is also envisaged that the VLE, which is currently available on the College intranet, will be integrated with O365@ODC online via single sign-on.
- ODC conducts many assessments including formative assignment submissions, interactive do-while-learning activities and summative in-course assessments and final examinations across a growing number of subjects through its VLE for both written and

OSPE assessments. The use of the VLE or Optical Mark Recognition sheets greatly assists in providing immediate correction of Single Best Answer type of Multiple Choice Questions and Extended Matching Questions, whilst eliminating examiner fatigue and marking error and providing statistical analyses for these components of assessment. Many of these assessments include the non-sequential random numbering of questions within the same assessment, generated from the question banks provided by the respective faculty to avoid student academic misconduct.

- Recently a distinction was introduced in the reporting of ICA and final examination results. As students cannot fail an ICA, results are reported as a numerical outcome, whereas in the final examinations, where students may be at risk of failing, the results are expressed as grading standards. This approach also provides greater transparency in recording student progress and achievement that will appear on academic transcripts, which is something employers have indicated is of use in the Oman context.
- The use of rubrics for formal summative assessment content, namely for ICAs and final examinations, assists in providing transparency, objectivity and uniformity for faculty and students in the construction of assessment material by utilising standardised structure and design.
- To assist with the student learning and avoid an earlier issue of students missing timetabled teaching sessions, specific weeks are allocated for ICAs and final examinations in the academic calendar with study weeks also scheduled prior to ICA 2 and the final examinations at the end of the academic year.
- Despite final BDS V external examiner reports affirming ODC graduates meeting international standards and with 29 from the first two cohorts attempting the MFDRCSI examination, of whom 21 graduates successfully passed Part 1 and Part 2 at first attempt and eight graduates passed Part 1 at first attempt, ODC graduates are still required to pass a MoH examination for clinical licensing to practice unlike their medical counterparts.

### **ADEE Panel Comments:**

- i. There is a good balance between teaching and student-centred learning developing at ODC. The seminar approach to this was demonstrated to the Panel as another excellent example of best practice. The evidence of vertical integration in BDS I was observed in an excellent student-led seminar. ODC should also be applauded for the work it has undertaken on the use of ECTS.
- ii. Comprehensive course handbooks are available for each course. The Panel were able to review a selection of very good examples of 'dental skills logbooks', structured reflective portfolios and case presentations. These provide an excellent learning tool for both a record of achievement and evidence of student reflective practice. There was clear evidence that students have the opportunity to extend their knowledge and understanding through the sharing of 'Clinical Care Plans'. Staff could build on this by creating an evidence-based environment.
- iii. The Panel commend ODC and in particular faculty responsible for the delivery of English teaching. It is comprehensive and clearly very much appreciated as first class by the student body. English teaching is advantageous not only for teaching and learning but helps students when guest speakers attend and this in turn should encourage the potential for student exchange which would promote the concept of ECTS.

- iv. The electronic 'traffic lights' system used at ODC for monitoring student progression and identifying the student who may be struggling is a valuable commodity. There was discussion on minimum requirements (quotas) for clinical procedures. Clearly the philosophy at ODC centres on the quality rather than the quantity. There are a series of methods by which staff measure the competence and confidence of students. Such examples include the clinical portfolio; patient care plans; case presentations; case-based discussions; continuous clinical activity grading; OSCEs and clinical gateway tests to ensure key skills have been achieved.
- v. Office 365 has provided students with a wealth of access to on-line learning and teaching material as well as enhancing communication between staff and students for notices and timetables.
- vi. It was clear to the Panel that an exceptional amount of work has been undertaken to organise OSCEs (there is a bank of over 200 stations). In addition, there is evidence of a structured approach to examination standard setting and overall psychometric analysis which is supported by a dedicated statistician in the School. This initiative has been driven and supported by the Consultant Advisor, Professor Samarawickrama.
- vii. The curriculum is based on the intended learning outcomes and competences mapped to ADEE's 'Profiles and Competences'. The learning outcomes and competences are clearly defined for all subjects. In addition, as part of the psychometric analysis process, each assessment is mapped to the ADEE 'Profiles and Competences.' The learning outcomes and competences are linked to the students' achievements, reflection and grades in their clinical logbooks to facilitate their achievement through clinical practice. This mapping exercise is collated through the central administration.
- viii. The clinical and educational facilities within ODC are excellent, well maintained and up to date. They support the opportunity to further explore additional student-centred, self-directed educational methods.
- ix. Assessment methods, processes and procedures are extremely well developed and supported by robust standard setting procedures. The strong psychometric input and the data that this produces is exceptional, and provides an excellent opportunity for monitoring student progression and provision of staff and student feedback.
- x. Clinical record keeping, radiographs etc. are all digitised. Students record patient information and write out reports, diagnosis and treatment plans as part of their clinical case planning, discuss this with their supervisor and then record centrally on-line. 'Carestream Dental – CS R4 Clinical and Practice Management Software' is utilised. Clinical activity and breadth of experience of the students is monitored through central administration. This facilitates the monitoring of student progress by the student's mentor and the School in general.

### **ADEE Panel Recommendations:**

- i. The Panel recommend that ODC should continue with implementation of ECTS and push forward the modularisation of the curriculum in line with the Bologna Process and the ADEE publication on curriculum structure and content.
- ii. The Panel would encourage ODC to continue a blended approach to the delivery of learning and teaching using a variety of methods to stimulate the students to increase their self-directed learning ability and reflective practice.
- iii. The Panel would encourage continued and growing application of evidenced-based practice into the curriculum.
- iv. Encouraging an increase in student exposure to clinical dentistry through, for instance, participation in preventative care and educational activities would be worth serious consideration. ODC would be advised to explore the possibility of more project work initiated from the basic sciences component of the BDS programme and projecting this into clinical practice. As scientific research within the College becomes increasingly more formalized, it should be included as a component of the dental curriculum to support the concepts of life-long learning and evidence-based dentistry.
- v. ODC should continue to encourage the opportunities for junior inexperienced students to work with and assist more senior students. This can be beneficial to both. Junior students can learn from their peers and senior students can get satisfaction from supporting their colleagues. This can promote a teamwork approach to patient care.
- vi. The Panel recommend that ODC explore the possibility of student-led tutorials, during the latter clinical years, facilitated by clinical and basic science teachers based on subjects where the basic sciences, medical sciences and clinical practice can be brought together. This would build on curriculum integration and on an integrated approach to oral healthcare.
- vii. The developments in relation to the ODC VLE display a potential for facilitation of existing and developing learning methodologies.

## Chapter 4 Facilities, Description and Number

### Overview:

ODC has constructed its purpose built facility on land allocated by the MoH. The building consists of a sub-ground floor, ground, first, second and third floors.

- The sub-ground floor comprises cafeteria, recreation area, separate male and female student prayer rooms, toilets and locker rooms together with central stores and accommodation for custodial staff.
- The ground floor is the public accessed clinical area with outpatient dental care units, CSSD, radiology facilities, day-care operating theatre suite and clinical administration offices.
- The first floor contains the training laboratories and a number of multipurpose teaching rooms and designated rooms for future use as research laboratories.
- The second floor consists of the College library, five lecture theatres which can individually accommodate between 55 and 200 people depending on size, a tutorial room and multimedia room with 37 PC workstations for directed and self-directed learning.
- The third floor comprises the Student Affairs Registry, faculty offices, staff common room, administrative offices, three self-contained apartments for visiting faculty and an area planned for an intra-mural private clinical practice.

The total built-up area, for ODC, is 6,700m<sup>2</sup> and the design and construction of the building is such that an additional two floors each of about 1,400m<sup>2</sup> can be readily added should this be required.

### ODC Analysis and Comment:

- Unable to provide the full infrastructural resourcing for managing special needs as this is primarily undertaken by the MoH. Consequently the College is dependent on MoH cooperation for students to gain clinical learning in this area.
- ODC has implemented the use of digital patient records, including student clinical grading, and digital intra-oral and extra-oral radiography from inception and this is considered to be appropriate in meeting the profile of the graduating dentist embarking upon dental practice through the use of contemporary technology.
- To ensure broad and comprehensive student clinical learning as well as engaging with the community, ODC provides oral and dental healthcare for Omanis and expatriates, including care such as routine orthodontics and implants that are not readily available from the MoH.
- The government has been repeatedly requested for an element of funding to reduce the significant burden of tuition fees being utilised for patient care so that tuition fees can be better allocated towards enhancing the student learning experience.
- The clinical facilities at ODC were officially utilised by the MoH between November 2011 and September 2012 on a full time basis with 14 dental care units allocated for this purpose by the College following damage to the dental department at the Al Nahdha Hospital outpatient department affected by adverse weather conditions to

ensure senior specialists and consultants at the MoH were able to provide continuity of care for Omani patients.

- ODC views itself as a partner with the MoH in contributing to the effective delivery of oral and dental healthcare to the nation and believes it should be recognised as a clinical educational centre rather than as a private clinical practice.
- The use of ADec simulators in the Clinical Skills Simulation Laboratory as well as ADec dental chairs in the patient dental care units is intended to provide a seamless transition as possible for students from the training laboratory to the clinical setting.
- A shift in learning through the use of slides in the Oral Sciences Laboratory towards the use of digital images is planned.
- ODC plans to invest in haptic technology to further enhance clinical skills learning when practical and more affordable.
- Although technical work for patients is outsourced to commercial laboratories, students utilise the Prosthodontic Laboratory to acquire the requisite knowledge and skills for core prosthodontic techniques including pouring impressions, special tray construction, setting up of anterior teeth, etc. Students do also visit the commercial laboratories to gain further understanding in the processes and equipment utilised in the production of technical work.

### **ADEE Panel Comments:**

- i. There are sufficient rooms that can be utilised for seminars and small-group teaching. All rooms have been future proofed in terms of wiring for a wide variety of uses.
- ii. There is a very good multimedia room that contains approximately 37 terminals. Access to an exceptional amount of learning and teaching material is made available to the students through the Office 365 portal and the College intranet VLE using the Moodle platform.
- iii. The Clinical Skills Training and Prosthodontic Laboratories, with around 36 stations in each, are well equipped and maintained and teaching is well organised.
- iv. The clinical facilities consist of two open plan multipurpose facilities, which are spacious, well-maintained and immaculately clean, with CSSD facilities in-house, supporting clinical provision and the teaching of sterilisation and cross infection control. Clinics have excellent chair-to-student ratio with clearly expressed guidelines and procedures.

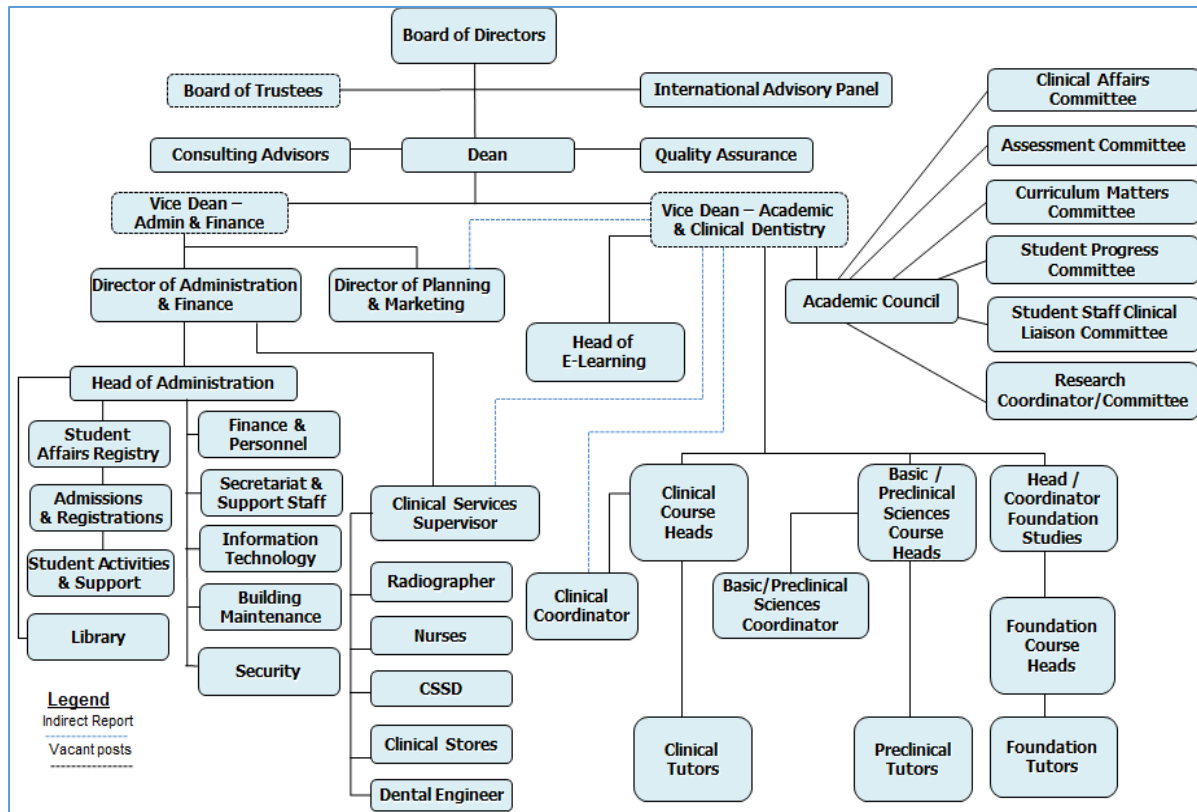
### **ADEE Panel Recommendations:**

- i. The Panel would recommend reviewing opportunities for students to visit and work in a variety of clinical sites outside ODC, including: attendance at the MoH Special Needs Clinics; attendance at clinics and surgical sessions at Al Nahdha Hospital, a MoH tertiary centre and; attendance at MoH community clinics.
- ii. The Panel would recommend that ODC consider investing in Cone Beam imaging equipment to support learning about 3D imaging and enhance the clinical care of patients attending ODC.
- iii. The Panel supports the future expansion plans of the College in meeting ODC's aspiration for undergraduate, postgraduate and research developments. Physical space is presently available to support the introduction of Research activities and some planned postgraduate training programmes. However there is also potential for use of available land for a dedicated clinical outreach facility for undergraduate and postgraduate students.
- iv. Support for supervision by MoH and private general dental practitioners would enhance the student clinical learning experience and in preparation for independent practice.
- v. ODC's current and envisaged facilities could provide another opportunity to support training of allied dental healthcare professionals.

# Chapter 5 Organisation

## Overview:

The organigram below reflects the College intention for horizontal and vertical integration throughout the institution with horizontal identification of governance and management and vertically the broad divisional areas of academic, administrative and clinical support.



ODC is well supported through its international connections, through its consultant adviser, the International Advisory Panel (IAP) and through its affiliation with UCM.

The responsibilities of the IAP are defined through its Terms of Reference as follows:

- The IAP carries out an annual inspection and advisory visit to the College. The primary remit of this independent panel is to regularly advise and report on College activities and progress to ensure that the BDS degree programme offered is appropriate in content and design, contemporary in approach and meets high international standards
- The panel should also be able to assist Oman Dental College in undertaking quality audits and accreditation with a view to recognition of its BDS degree by regulatory and licensing bodies internationally and at foreign institutes for postgraduate dental education where graduates of the College may wish to pursue further studies
- The International Advisory Panel may be called on to advise the College on possible educational development trends in dentistry and international collaborations



The Consultant Advisor(s) will work with the Dean to plan for future academic provision and to improve existing programme delivery by providing information, advice and recommendation in all aspects of clinical and non-clinical dental education. Responsibilities include:

- Advising on the design and implementation of ODC's curricula and its general strategies to ensure continuous quality improvement of teaching and learning
- Advising on the design and implementation of assessment strategies and making recommendations to enhance the quality of assessments including psychometric analyses
- Advising on the evaluation of teaching practices and teaching staff and making recommendation to enhance quality of education and training
- Assisting with teaching staff appraisal processes
- Making recommendations for staff development programmes including research activities and providing feedback to teaching staff accordingly and as requested by the Dean
- Recommending enhancements to ODC's recording systems to enhance accuracy and usability of information
- Providing advice and information on staff recruitment, strategies, advertising and employment opportunities
- Overseeing examinations as required
- Advising on all other general matters to encourage and enhance development of both clinical and non-clinical activities

### **ODC Analysis and Comment:**

- The organigram is arranged to depict horizontally governance and management and vertically under management to indicate academic and administrative roles. The Academic Council has decision-making responsibilities.
- The organigram reflects the need for course coordinators across the BDS programme as there are a number of non-clinical part-time and visiting faculty who have limited availability for administrative work. Course coordinators also provide central points of contact for the respective foundation, preclinical and clinical components for efficient administration of learning and assessment activities.
- The committee structure enables some degree of autonomy whilst integrating decision making as committees have common membership from senior faculty for assessment and curriculum matters. However the composition of committees may be reviewed.
- The College continues its search for a suitable candidate for the position of Vice Dean (Academic & Clinical) and has identified a potential individual for the position of Vice Dean (Administration).
- ODC recognises the need to further refine its organigram to be able to identify and distinguish roles from posts more clearly.
- The Board of Trustees role is fully covered by the International Advisory Panel. Although the Board of Trustees Terms of Reference have been structured to accommodate the requirements of the MoHE in part, the MoHE expects the Board of

Trustees to sit above the authority of the Board of Directors and given that the latter has ultimate financial responsibility for the College and is not advisory alone, the Board of Trustees is expected to be appointed once this anomaly is resolved.

- The IAP was formed as ODC believed that, as the first and only dental school in Oman and in the absence of a structured experienced regulatory body for dentistry, high level international expert ongoing advice be sought to ensure quality at all levels in keeping with the mission & vision to deliver a BDS degree to international contemporary standards. The IAP is viewed as a key and indispensable asset in advising ODC on all aspects of its strategy and operations.
- Professor Samarawickrama, a Consulting Advisor, makes frequent visits each year, attends IAP meetings and provides an annual report to the IAP. He has also been appointed as a member of faculty to enable him to actively participate in enhancing student learning.
- As a Consulting Advisor the College Chairman who, until recently was a senior consultant, former Head of Dentistry and Chair of the dental licensing committee at the MoH continues to assist the College with significant local input and knowledge.
- Students would benefit from more part-time local clinical tutors to broaden their understanding of clinical dentistry from a general practice perspective but with current MoH regulations this is not possible and is seen as a hindrance to the progress of the College.
- Whilst the Dean technically heads each committee as Chair he acts more in an ex-officio capacity to enable committee Vice Chairs to assume responsibility and to develop management skills.
- The Dean meets and individually counsels any student who has failed the BDS V final professional examination and provides remedial planning to assist in student progress.
- The use of digital clinical management and integrated imaging software from inception prepares students for contemporary clinical practice and significantly streamlines efficiency whilst contributing to a global green initiative.
- Students take responsibility for the administration of the care delivered for their patients as far as possible to prepare them for independent practice following graduation.
- There is a need to improve the content of its website which in part can be achieved by more regular website committee meetings.
- ODC uses current concepts in ICT evidenced through its hardware infrastructure and use of software technology, most noticeably through its VLE and the use of Cloud computing.
- The College is considering the introduction of CAD-CAM technology for clinical applications to further enhance the use of ICT in future.

### ADEE Panel Comments:

- i. The Panel were impressed by the energy, enthusiasm and forward-thinking philosophy displayed by senior management through the Dean and the Chair of the Board of Directors, ably supported by their dedicated administrative team. There is full support from the Faculty members and Course Leaders and all those associated with producing dental graduates of a high standard. Organisation within ODC appears complex, but on further explanation the areas of governance of the College and management are clearly defined and the lines of communication clearly demonstrated. The impression is that this continues to be refined but appears to achieve the objectives of this educational institution.
- ii. There was clearly support for the senior management's vision for ODC, from the staff and students who met with the Panel including those from outwith ODC – a philosophy of 'shared ownership' exists which supports the drive for excellence in education.
- iii. There are clearly continuing ambitious plans for development of ODC and a great deal of effort has been put in to engender a robust approach to the quality assurance of the BDS programme.
- iv. ODC has truly engaged the concept of integrated holistic care of patients through its decision not to have departments based on disciplines or specialties. Rather they focus on leadership and communication across the College through Course Leaders.
- v. The Panel's impression is that ODC, through the output of its graduates, will ably support oral healthcare in the community in the future and encourage potential clinical academics and researchers to return and drive the vision, mission and values of the College.
- vi. There is evidence of student involvement in College affairs. Student opinion is recognized and appreciated at different levels within the College administration. There does appear to be an 'open door' policy for engagement with both staff and students.
- vii. Dental nursing assistance is provided by medical nurses who have undergone some dental nurse training. There are few of them and they may only work with students when the student does not have another student to act as the dental nurse. The Panel understand that Dental Nurse training is undertaken in a neighbouring institution. There is a plan to extend this to involve the education of hygienists and therapists. An approach has been made for the clinical component of these programmes to be undertaken at ODC.
- viii. All clinical laboratory work is transported to a laboratory outside ODC. It would appear that the turn-around of work is satisfactory and there is a good working relationship between the two organisations. The students visit the laboratory to gain knowledge and understanding about the laboratory techniques and processes.

### **ADEE Panel Recommendations:**

- i. ODC should explore the combination or restructuring of some of the committees that feed into the Academic Council as it would appear that a number of academic staff sit on multiple committees.
- ii. The Panel would encourage the College to explore ways with the MoH in which part-time general dental practitioners (GDPs) can be incorporated into the BDS programme to enhance the student educational experience, bearing in mind the need for a structured approach to engaging these individuals through training to support the vision and mission of the institution. They must be fully integrated from both an academic and organisational perspective.
- iii. The Panel would encourage the College to pursue the training of dental nurses, hygienist and therapists. This could be beneficial for all concerned and in particular engender an ethos of “teams of dental professionals training and providing clinical practice together” – strengthen the role of the dental team which is recognised globally as best practice for patient-centred care. Teamwork with dental hygienists and dental nurses could help to achieve the goals in providing dental and oral health care services to the local community.

## Chapter 6 Staff

### Overview:

ODC faculty consists of full time, local part time and a number of international visiting faculty comprising both expatriates and Omanis, all of whom are suitably qualified and experienced.

Prior to appointing faculty members, academic qualifications with supporting documentation are provided to the MoHE for approval. Additionally all faculty undertaking the clinical supervision of students are licensed by the MoH.

The College presently has 22 full-time, 19 local part-time and six international faculty, with the latter visiting on a regular basis that equates to a Full Time Equivalent (FTE) of 25.6 faculty that does not include the Dean and Consulting Advisor. The overall faculty: student ratio is 1:14.2, although this ranges from approximately 1:60 in lectures, 1:15 in practical sessions and from between 1:1 to 1:7 in clinical sessions.

### ODC Analysis and Comment:

- Although the staff:student ratios and faculty FTE are adequate the College believes the presence of more part-time clinical faculty will benefit student learning. Due to MoH restrictions almost all part-time faculty are non-clinical.
- Omani Labour Law does not routinely permit expatriates to work on a part-time basis unless sponsored by the employer and there is a shortage of suitably Omani academics across all disciplines which presents challenges in appropriate staffing.
- Faculty research needs to be developed and this is seen as a natural process once graduate education is offered although it is included in the current strategic planning period.
- Within the HR systems, ODC recognises the need to formalise staff appraisals and utilise these to inform staff promotions and increments. However as an academic institution the College recognises the need to apply staff increments that are not solely performance based and does so on an annual basis.
- ODC recognises the need to action formal staff appraisals that include teaching room observations, although these are not the primary criteria for staff promotion.
- The College meets specified Omanisation targets for faculty although not so for support staff as the Ministry of Manpower does not currently distinguish technical support staff from general administrative staff and recruitment of Omani technical support staff is problematic.

### **ADEE Panel Comments:**

- i. ODC is fortunate to have a variety of well-qualified, open-minded staff, with an excellent relationship with the international educational community. All staff are very enthusiastic, and their good work should be encouraged to continue.
- ii. The input from the IAP, Consultant Advisor and the recent affiliation with UCM has clearly resulted in a number of 'areas of best practice'. Staff, in recent years, have attended learning and teaching courses organised and run by the Consultant Advisor and the staff appear content with their workload.
- iii. ODC is clearly striving to support succession planning and Omanisation of the teaching staff and the dental practitioners in Oman.
- iv. Staff confirmed that optimisation of four-handed dentistry in clinical practice is in place. Same year students routinely assist each other and on occasions (dependent on schedules) the more junior students will assist senior students which provides a valuable learning opportunity all round. This strengthens the earlier patient contact for students.
- v. Staff recognise the importance of pre-clinical teaching in the basic and allied sciences, along with preparation for carrying out procedures on patients, which lays the foundation for students' future in clinical dentistry.
- vi. There is evidence that staff promote teaching of their subjects using e-learning and have produced a series of videos and models for on-line learning opportunities through the College's VLE which the Panel witnessed were of very high quality. There are many examples of teaching materials and innovations across the curriculum developed by College Faculty.

### **ADEE Panel Recommendations:**

- i. Whilst the staff are striving to achieve their research aspirations, the direction of travel for research needs to be more focused. To enable this, research could be further embedded in teaching and learning thus creating space in the programmes of teachers subject to the adequate availability of financial resourcing.
- ii. The introduction of structured postgraduate clinical training programmes would be of significant benefit to new graduates and ODC staff career progression.
- iii. The Panel would recommend a review of opportunities for staff promotion at ODC. With regard to promotion opportunities for staff, a structure is in place but timeframes and ability to fulfil criteria seem restrictive. It is important that ODC and its staff are embraced by the wider academic and healthcare community in Oman. It is important to recognise the need to provide incentives to retain these highly committed motivated, enthusiastic and clearly talented faculty to support the future direction of travel for ODC. The Panel understand that the MoHE has to approve promotion and believes that faculty work at ODC would be recognised in their home country in terms of promotion.

## Chapter 7 Biological Sciences

### Overview:

Biological Sciences are part of the Basic Sciences Core Module comprising the five courses: Human Structure I and II, Human Function, Human Disease I Oral Biology. They provide the basis of student learning in BDS I and BDS II, and the foundation for future clinical decision making by students.

Integration in the Curriculum is evident through horizontal, vertical and spiral integration as listed below:

#### *Horizontal integration*

- In BDS I between the 'Anatomical Sciences' (Human Structure I, Human Structure II) and 'Human Function' (Physiology, Biochemistry) - understanding and relating the anatomical and histological structures of the body with how the body functions at a cellular level.
- Between 'Introduction to Oral Biology' in BDS I and 'Human Structure II' (serves as a foundation for Oral Biology in BDS II).

#### *Vertical integration*

- 'Anatomical Sciences' in BDS I with 'Human Disease I' (General Pathology & Microbiology) in BDS II - students learn to differentiate between normal and abnormal structures and processes of the human body.
- 'Human Structure II' in BDS I and 'Oral Biology' in BDS II - relating the innervation of head and neck structures and in particular the teeth and salivary glands to the detailed learning of the structure and function of the oral cavity that is necessary for an understanding of clinical dentistry.
- 'Human Function' in BDS I with 'Oral Biology, General Pathology & Microbiology and General and Dental Pharmacology & Therapeutics' in BDS II- with relevance to the understanding of the clinical medical and dental subjects in BDS III, BDS IV and BDS V.

#### *Spiral integration*

- 'Anatomical Sciences' and 'Oral Biology' is evident throughout the clinical dental courses in BDS III, BDS IV and BDS V - students correlate and apply knowledge gathered through these courses in BDS I and BDS II.

### ODC Analysis and Comment:

- The use of summatively assessed presentations in the Anatomical Sciences courses supported by Learning Skills course in BDS I is intended to develop transferable skills that are utilised in the clinical years in relation to communication and team working.
- Although there is an element of Problem Based Learning in the Anatomical Sciences this could be extended to other courses.

- Whilst there are adequate learning resources for the Anatomical Sciences, the College intends to invest in additional artificial skulls and models.
- Regular visits by international visiting professors in the Anatomical Sciences and Oral Biology is of significant benefit both for student learning as well as for faculty development and international alignment of these courses and their assessment.
- As a standalone institution the College does not benefit from being part of a larger multidisciplinary university. Consequently for those courses / subjects with lower student contact hours, a number of part-time faculty need to be engaged and given local regulations recruiting can be problematic on occasion.



### **ADEE Panel Comments:**

- i. The teaching of the Biological Sciences (human structure, human function, human disease and oral biology) is quite traditional in terms of being subject-orientated and building on basic principles. However bottom-up vertical integration into clinical dentistry is well achieved through the use of scenarios and questions derived from clinical situations. Concepts introduced in the early years appear to be reinforced later in the clinical setting. Teaching in Oral Biology, particularly training of manual skills at this time, is very extensive in the curriculum and is reinforced in the pre-clinical setting
- ii. The summatively assessed presentations, in the Anatomical Sciences, involve students in student-centred learning and are an excellent example of good practice in the integration of the Biological Sciences into clinical situations. The Panel witnessed an excellent student-led seminar in BDS I where three students covered the subject of swallowing and disease processes associated with swallowing – the presentation was very interactive and there was good participation from the other students present. This suggested that the teaching across the themes is more case-based than problem-based in character.
- iii. Clearly the visiting professors play an important part not only in securing the quality of student teaching but also in staff development for the future.

### **ADEE Panel Recommendations:**

- i. ODC could investigate the possibility of involving basic scientists when students self-reflect in their clinical case reports in the later years of the BDS programme. The presentations in Anatomical Sciences are an excellent example of student-centred learning. Such initiatives could be introduced in other Biological Science subjects.
- ii. ODC should consider whether the students need all of the time allocated in the curriculum to achieve the required competence in manual dexterity. Within the domain of Basic Sciences there appear to be opportunities to reduce content in order to facilitate other teaching activities (for example excessive time dedicated to waxing-up).
- iii. The Panel were alerted to a new directive to all educational institutions in Oman to promote teaching in 'entrepreneurship'. Faculty, in ODC, have a number of initiatives which they could include students in to promote the concept of 'entrepreneurship'.
- iv. An increase in clinical experience during the preclinical years would create a more stimulating environment for learning of the basic sciences. Some of the extensive content within the preclinical years could be removed to facilitate this.
- v. With reference to the Panel's comments above, Problem-based learning is labour-intensive and can be difficult to introduce in traditional curricula. The Panel therefore recommend that ODC continue and extend the use of case-based learning within the biological sciences to increase integration into clinical dentistry.

## Chapter 8 Medical Sciences

### Overview:

The Human Disease courses contribute to the Medical Sciences. General Pathology and Microbiology contribute to the Basic Sciences, whilst General and Dental Pharmacology & Therapeutics and General Medicine and Surgery take place during BDS II and BDS III respectively. The essentials of basic life support and resuscitation are emphasised during this part of the programme. Students attend Al Nahdha Hospital, a MoH tertiary centre, to become familiar with aspects of patient care in General Medicine and Surgery. The students make their own travel arrangements to attend these commitments.

### ODC Analysis and Comment:

- Students benefit from the opportunity to visit Al Nahdha Hospital, a MoH tertiary centre, to become familiar with aspects of patient care in General Medicine and Surgery.
- The College has a number of specialist medical and surgical clinicians who provide guest lectures for the Human Disease II Course.

### ADEE Panel Comments:

- i. The Panel met with senior academic staff who appear to be dedicated to supporting the teaching of dental students and the needs of the dental students are well respected. For example, in Pharmacology, there are 10-12 hours contact in the form of seminars which are based on case scenarios/vignettes designed to address areas of relevance to dentistry. Likewise for Medicine and Surgery (Human Disease II) as well as didactic lectures the students see patients during seminars (30 contact hours) where they record histories, perform patient examination, review medication and assess the impact of general health and disease in relation to dentistry.
- ii. Areas of integration were demonstrated where every effort is made to demonstrate the relevance of the Human Disease topics to the delivery of oral healthcare. This is important as globally more complex dental care is required for an increasing aging population who present with a variety of medical conditions and a plethora of medications.
- iii. Input from the clinical educators, involved in these courses, is directly into the Academic Council and only into its various subcommittees as the need arises.

### ADEE Panel Recommendations:

- i. There is evidence of the College acting on student feedback and striving to improve the teaching in the Medical Sciences and this is to be applauded. It is important that ODC continues to demonstrate that it is acting on feedback from students widely across all courses and equally ensuring that the College's responses to issues raised are widely disseminated back to the students.
- ii. The Panel believe that it would be useful, given the existing evidence of reviewing and quality assuring of courses elsewhere in the curriculum, that the clinical educators for these Medical Sciences courses are encouraged to utilise the College's 'ADRI' approach to support refining their courses.

## **Chapter 9: Public Dental Health and Behavioural Sciences, and Chapter 13: Scientific Education and Development**

### **Overview:**

ODC chose to cover the areas within Public Dental Health and Behavioural Sciences (Chapter 9) and Scientific Education and Development (Chapter 13), as the latter covers Biostatistics I and Epidemiology and Applied Statistics.

The Public Dental Health and Behavioural Sciences' cover subjects corresponding to the Allied Sciences topics covering, Biostatistics II (including Epidemiology and Applied Biostatistics (BDS III)), Professionalism (including Behavioural Sciences, Law and Practice BDS II, IV) Dental Public Health, Community & Preventive Dentistry (BDS IV). In addition Ethics teaching is integrated across these subjects throughout BDS II-V. The 'Introduction to Clinical Dentistry' is very much inter-related to this part of the programme (although dealt with under Restorative Dentistry). Behavioural Sciences is introduced early in BDS II as much to stress the importance of all round development of a student's personality and supporting their relating to various situations that can occur in dentistry. Professional accountability and the privileges, responsibilities and values are instilled into the students' development. Dental Public Health, Community and Preventive Dentistry provide an overarching insight, incorporating the related allied sciences subjects into oral health care systems and the needs of society.

### **ODC Analysis and Comment:**

- ODC benefits from a senior international visiting faculty chair and senior lecturer who are actively involved in the structure and delivery of the Dental Public Health, Community and Preventive Dentistry component of the curriculum and who encourages student self-directed learning and research methodology through a comprehensive reading resource list.
- Students are encouraged to utilise the extensive course notes in Biostatistics I and Biostatistics II and the comprehensive reading list for Dental Public Health, Community and Preventive Dentistry. This is intended to create student awareness in the value of research tools and methodologies and to develop an appreciation of evidence based dentistry.
- There is a need for the College to develop empirical student research and this is recognised and is included within the current strategic planning period.
- Behavioural Sciences in BDS II is currently taught by a qualified counsellor with input from the dental faculty.
- Currently Ethics teaching is incorporated at key stages within the various courses in the Allied Sciences Core Module. However from the next Academic Year, Ethics will be classified as a Course to provide it with more relevance in the curriculum and to also enable greater integration.
- Student electives are currently voluntary with a limited number of students opting for these. This is an area which needs to be developed further keeping in mind cultural, financial and logistics considerations.

#### **ADEE Panel Comments:**

- i. The basics of the Behavioural Science and Public Dental Health courses are now in place at ODC. The members of the team appeared to support and complement each other and were proud of their achievements. They were very aware of the opportunities for improvement in the integration of Behavioural Science and Public Dental Health.
- ii. Training in these areas is initiated early in the curriculum and is built on in successive years. Clinical integration of the areas is well adapted for assessment in OSCEs. There is evidence of good practice through the use of role play in communication with patients.

#### **ADEE Panel Recommendations:**

- i. The Panel were informed of an innovative practice involving some of the students on a voluntary basis in coordination with the Ministry of Health and with the support of the College. It would be extremely useful to share this innovation, which involves students visiting shopping malls and other venues to provide dental health education, with faculty and other students.
- ii. The Panel recommend that faculty continue their good work and whilst the balance within the curriculum appears to be appropriate, more time could be devoted to treatment of patients with special needs. ODC should consider exploring the possibility of introducing a student rotation to the MoH Special Needs dental clinics.
- iii. Students need to focus more in developing their academic skills in general to be able to use them correctly in compiling their case reports. Students should be encouraged to give evidence for their treatment choices to increase the evidence-base behind treatment planning. There is a need for empirical student research within the curriculum to develop a critical scientific approach to dentistry. Students are highly motivated and many already participate in activities within the community supported by ODC.
- iv. The Panel recommend investigating formalisation of a student elective. Students could, as a result, make a valuable contribution to Public Dental Health research in Oman, by collecting basic data on the population. The inclusion of teaching in epidemiology into biostatistics as well as training in basic research methodology such as interviewing and how to conduct a survey would prepare students for participation in research projects.

## Chapter 10 Restorative Dentistry

### Overview:

This part of the programme covers the subjects of 'Dental Materials Science', occurring during BDS II & III, the 'Introduction to Clinical Dentistry' (including further teaching in ethics), in BDS III and the clinical restorative subjects. The latter includes early preclinical conservative dentistry and periodontology taught in BDS II. These continue along with Endodontics and Prosthodontics through BDS III, IV and V.

The courses in Dental Biomaterials Science utilise simulated clinical scenarios to support rational selection of appropriate dental materials. The course of preclinical training in adult dentistry focuses on prevention and minimally invasive adhesive dentistry in the clinical skills laboratory. This prepares students for the Introduction to Clinical Dentistry course in BDS III where the general principles of healthcare are taught. During this period the students perform core clinical procedures on each other. They commence clinical care on patients on satisfactorily completing a number of key 'clinical gateways'.

Conservative dentistry builds on experience of simulation in the skills laboratory initially as the student gains more experience on techniques and skills along with integrating across the restorative spectrum of care and management. Similarly, for Endodontics students undertake practical approaches to root canal therapy prior to clinical management of patients on successful completion of the 'endodontics skills gateway'. More complex endodontic procedures are encouraged as well as a holistic restorative approach to patient care. Likewise students perform periodontology and prosthodontic procedures through simulation in the skills and prosthodontic laboratories respectively before success in the relevant 'clinical gateways' facilitates their access to increasingly complex procedures in the clinical setting. At all times the overarching management of the adult patient across the restorative spectrum is encouraged and experienced.

### ODC Analysis and Comment:

- The Introduction to Clinical Dentistry Course was initially introduced in AY 2013/14 in a basic form and was significantly developed for AY 2014/15 with considerable input from the Consulting Advisor. However, there would be benefit for the inclusion of student reflection for clinical gateway attempts in this course as at present only faculty comment on failed attempts through R4 and students are able to view these comments.
- Whilst it is arguable that the Introduction to Clinical Dentistry Course in BDS III could have appropriate fit within the Clinical Dentistry Core Module rather than the Allied Sciences Core Module, it incorporates elements from both Core Modules.
- Although consideration could be given to the earlier student contact with patients than in BDS III, this has not been possible due to the steep learning curve for ODC students to attain appropriate standards in the preclinical years prior to commencing the clinical care of patients.
- The College is additionally considering the possibility of BDS II students attending ODC clinics as observers.
- Student learning would be enhanced with the inclusion of additional part-time supervising clinical faculty to provide a broader general practice element to Adult Restorative Clinical Dentistry.
- Problem Based Learning needs to be utilised more effectively in Adult Restorative Dentistry.

- Using the expertise of an international visiting faculty chair in conjunction with full-time faculty the approach to student learning in Cariology & Conservative Dentistry follows state-of-the-art contemporary concepts of biologically-based minimum intervention and minimally invasive dentistry. With ODC being a relatively new school, this approach provides the ideal opportunity for the full-time faculty to embrace modern concepts without having to overcome the often present lag created by the traditional approaches to teaching that can be present in more established institutions. However, further staff development with support from international visiting faculty and the Consulting Advisor will be of benefit in extending this approach across Adult Restorative Dentistry.

#### ADEE Panel Comments:

- Faculty displayed clear evidence of working as a team, with excellent co-operation, which clearly demonstrates that they value shared ownership of what they have achieved in terms of integration across restorative dentistry and with other subject areas. Faculty use the time available when they have finished marking final examinations and students have finished their courses to work together on future teaching and learning methodology preparation.
- The Panel were informed about the Integration of Dental Materials Science topics at relevant times in parallel with teaching of Conservation, Prosthodontics and Endodontics throughout the courses run in the Clinical Skills Training Laboratory. Equally, Conservation, Oral Biology and Dental Biomaterials Science are taught in parallel with integration of these courses. The Restorative courses deliver teaching on prevention together and also in collaboration with Public Dental Health and Paediatric Dentistry. There is an Implant course in which the students have the opportunity to assist in patient care.
- Early experience for the students, assisting colleagues, undertaking dental nurse activities can be very beneficial. These are opportunities for all students (operator and assistant) to feedback what they have learnt to the whole of their group.
- There is an excellent team-working ethos displayed across faculty staff. Decision making is facilitated through the regular team meetings. A faculty group decision is made on whether to use a new material or consider purchasing new equipment. Collaboration in this way provides an evidence-base for a proposal and then agreement across faculty which leads to a consensus that is brought to the attention, as a structured proposal, to the Dean. This is achieved through regular planned monthly meetings of staff across restorative and allied subjects. They consider all aspects of training across the years when considering a change to a course and introduction of new equipment or new materials.
- Faculty would welcome the return of part-time practitioners, especially given that these practitioners have already been subjected to a structured calibration process to enhance consistent teaching of the students. They also add another perspective in support of the students' critical thinking around their treatment planning. Both practitioners and students as a result of this initiative have the opportunity to learn and reflect on their experiences. Likewise this way of learning can be further strengthened when the students and the same practitioners work together in outreach community clinics.
- Faculty appreciate the Quality Management System of ODC which facilitates student progression and feedback on teaching and learning modalities through a series of



'traffic light' processes which reports on student activity on clinics. The Panel are led to believe that this feedback is circulated bimonthly.

- vii. It is clear that where a student is weak or deficient in areas of learning, including clinical skills, a structured remediation process is put into place to support their development. This may be driven by the student's mentor or in co-operation with relevant supervisors.
- viii. Faculty would welcome the opportunity to engage with relevant institutions to strengthen and increase the training of allied dental professionals. They recognise the importance of team training and delivery of oral healthcare through a dental team – a preventive and a treatment team-based approach.

#### **ADEE Panel Recommendations:**

- i. The Panel recommend that ODC do not pursue PBL but rather refine and strengthen their existing case-based discussions and ideally base these discussions around 'real' cases that the students themselves have been involved in and for whom they, the students, have produced patient care plans. This is an ideal opportunity to provide a refined and structured approach to case-based discussions across what appears to be an excellent integration across the restorative specialties.
- ii. ODC should continue to build on opportunities with the existing and proposed earlier student contact with patients. The Panel believe that working in the community could enhance the quality of the students' learning opportunities by providing broader experience.
- iii. Utilisation of part-time general dental practitioners at ODC would be viewed as good practice. In parallel, opportunities for training in outreach centres would be welcomed by faculty and students and beneficial to all concerned. Part-timers would free up time for faculty to undertake administrative activities, curriculum review and build a research base.
- iv. The Panel recommend that ODC explore the training of allied dental professionals alone or with other relevant institutions. This could be seen as opportunity, and beneficial to the concept of team training and service provision by the dental team.
- v. The Panel agree with the suggestion, from one faculty member, to review the hours for pre-dental training in removable prosthodontics as this could facilitate increased training on the clinical floor or emphasise more teaching around the subject of fixed prosthodontics.
- vi. Faculty expressed a wish to provide some student exposure to surgical periodontics and endodontics. The Panel would suggest that this offers an opportunity to link in with oral surgery surgical training, particularly in the skills simulation part of the course in preparation for carrying out treatment on patients in the clinic.
- vii. The Panel recommend implementing the College's good practice of refining programmes through the 'ADRI' process, supporting a whole school approach through their Quality Management System.

# Chapter 11 Orthodontics and Paedodontics

## Overview:

The subjects of Orthodontics and Child Dental Health are covered during BDS IV and V. In Orthodontics students are introduced initially to the aetiology of malocclusion and through understanding orthodontic treatment needs are able to plan, manage and treat patients require simple orthodontic care. Later this basic framework enables them to recognise and diagnose dento-facial deformities. At all times encouraging communication with patients and families, critical thinking and problem solving is emphasised. Initially in Child Dental Health they are taught basic approaches to the management of paediatric dental patients which leads later to consolidation of the clinical skills and management of the child patient.

## ODC Analysis and Comment

- Students have opportunity to manage a range of paediatric patients encompassing a wide variety of clinical procedures including early childhood caries, management of dental caries in primary teeth, management of dental caries in young permanent teeth and management of traumatic injuries to the teeth within comprehensive care plans.
- There is presently no student involvement in health education for school children and this needs to be addressed.
- Student clinical learning would be enhanced with the introduction of clinical case report presentations in Child Dental Health.
- The presence of a highly experienced international visiting chair in paediatric dentistry is of great benefit to the structure, planning and delivery of the Paedodontic Courses.
- A formative and student self-reflective logbook for the paediatric dentistry practical component of learning in the Clinical Skills Laboratory has been recently drafted for implementation in the next Academic Year.

## ADEE Panel Comments:

- i. The Orthodontic course covers a wide range of basic and clinical subjects that are relevant for the management of prospective orthodontic patients. The course covers normal development of the oro-facial system and the examination, diagnosis and treatment planning of simple cases, including the basic principles of orthodontic treatment and practical skills in orthodontic wire-bending and construction of removal orthodontic appliances. There are plans in orthodontics to set-up postgraduate orthodontic training programmes possibly working with colleagues and institutions in the UK.
- ii. Paediatric dentistry is benefitting from the recent stabilisation of dedicated senior faculty following the lengthy time required to obtain clinical licensing. There is evidence of assessment of treatment needs and different treatments applied to child patients, including preventive clinical measures used in paediatric dentistry, especially fissure sealants. Students gain practical skills in patient interviewing and examination as well as behaviour management and techniques of local anaesthesia.



- iii. The Panel were informed that there is a structured approach to prevention and oral health education for children and their parents.
- iv. There is close co-operation between paediatric dentistry and orthodontics on an integrated approach to child oral healthcare.

#### **ADEE Panel Recommendations:**

- i. Given the close co-operation across the specialties with the objective of integrated care for children, the Panel recommend that an integrated reflective log-book would be beneficial, encompassing paediatric dentistry and orthodontics.
- ii. The Panel recommend taking the opportunity to engage further with parents and family members who attend with their children, to attend health education sessions run outwith clinical time.
- iii. There is a wish to extend the students understanding of the different orthodontic treatment options during the period of introduction to clinical training. This initiative would be worth exploring further.
- iv. Staff are very receptive to introducing students to the concept of sedation techniques. At present they have experience in local anaesthesia. However, children who require general anaesthesia for dental procedures are referred for treatment by the relevant specialist based at the MoH hospital. The Panel believe that such opportunities for training students should be explored.
- v. The Panel were informed that there are an increasing number of children in Oman and there is evidence that the caries rate in children remains high. The Panel suggest that it would be valuable to continue all options for students to go out into the community to support the delivery of oral healthcare education to the general population. The Panel were made aware, as mentioned previously, that there are small groups of students providing such educational delivery with ODC support. The Panel recommend engaging students in oral health education for children and families. It would be valuable to pursue opportunities to interact with the Oman community.

## Chapter 12 Oral Diseases of Bone and Soft Tissues

### Overview:

This area of the course commences in BDS II, with the 'Introduction to Dental Radiology and Imaging'. This subject continues vertically through BDS III, IV and V supporting their understanding of radiation protection and performing a variety of radiographic exposures for their patients as well as being introduced to advanced imaging modalities. The 'Oral Pathology & Microbiology' component of Oral Disease I takes place during BDS III and is integrated with the clinical components of the course through Oral Disease II and III. 'Oral Surgery' commences in BDS III and continues along with 'Oral Medicine' during BDS IV and V. Teaching of 'Oral Surgery and Oral Medicine' are linked to subjects covered in the Human Disease II part of the programme. As well as the experience of providing minor oral surgery care for patients, there are opportunities to experience specialist clinics.

### ODC Analysis and Comment

- Presently Introduction to Dental Radiology & Imaging in BDS III has been included within the Allied Sciences Core Module as this course has only a didactic component and is introductory in nature. However further consideration is being given for relocating this course to the Clinical Dentistry Core Module which would provide more seamless integration.
- The curriculum in general and oral disease in particular nurture knowledgeable, confident and proud graduates, instilling a commitment towards continuing professional education and advancement. It also imparts a sense of professional, ethical and social responsibility.
- ODC students receive a well-rounded education with extensive oral surgical clinical experience.
- The didactic and clinical components of the Oral Disease Courses enable students to acquire relevant knowledge, skills and adequate training necessary to obtain competency in basic minor oral surgery and oral medicine expected of a general dental practitioner and an appreciation as to when to refer cases which are beyond their scope.

### **ADEE Panel Comments:**

- i. As far as the Panel can judge, there is demonstrable integration across the specialties within the Oral Disease courses. There is evidence of integration of Oral Pathology and its relevance to the variety of Oral Medicine conditions seen on clinics – the Oral Pathologist visits the clinic to discuss the pathology of the patients that the students are treating.
- ii. There is evidence of a structured approach to teaching of local anaesthetic techniques and minor oral surgery procedures. Whilst there are not dedicated sessions for all students to undertake elective minor oral surgery, they do have opportunities to assist in most cases but in some cases undertake part of a surgical procedure.
- iii. The Panel are aware that the local MoH Al-Nahdha Hospital could provide valuable training opportunities for ODC dental students.
- iv. Students at ODC experience access to a variety of oral mucosal diseases.
- v. There is evidence of collaboration between the dental surgeons and their medical colleagues in this area of the curriculum and equally with the Basic and Applied Medical Sciences through vertical integration.

### **ADEE Panel Recommendations:**

- i. The Panel recommend that ODC revisit opportunities for students to attend local hospital facilities, to see more complex surgical cases as part of a concerted approach to work in facilities outside ODC.
- ii. The Panel recommend considering the introduction of planned elective surgical sessions to facilitate equal opportunities for all students to carry out local flap procedures and bone removal for removing roots and impacted teeth. Similarly, expanding the opportunity to perform minor biopsy procedures would be useful.

# Chapter 14 Integrated Dental Care

## Overview:

Integrated Dental Care, at ODC, emphasises the need for a high standard of professionalism with the need to work as team in the provision of care for adult and child patients. Ultimately, this provides the opportunity for students to take responsibility for their patients to the level expected of a 'safe beginner' on graduation.

## ODC Analysis and Comment:

- Whilst students are regularly exposed to the concepts in care planning from BDS III onwards and a number of symposium style care planning lectures are held in BDS V across the ARD clinical disciplines, there is a need to structure this element of student learning such that it is more inclusive within the curriculum.
- Although students are expected to utilise the clinical portfolio for self-reflection on completed care plans and also following the provision of clinical care in R4, this is limited and needs to be improved.
- Students in each BDS clinical year work in pairs and whilst the College is aware of potential benefits from pairing senior with junior students, this is currently problematic due to scheduling limitations and also due to a shortage of trained dental nurses who would be required for additional chairside support.
- Although ODC has an in-house day care operating theatre, this has not yet been commissioned and consequently surgical cases requiring sedation and general anaesthesia are referred to the MoH Al-Nahdha Hospital.
- To expose students to the concept of integrated care, dental outreach clinics at MoH primary health centres were utilised for BDS III students until Academic Year 2012/13 but not thereafter due to bureaucratic hurdles and also as materials and techniques used were not in alignment with ODC approaches to clinical dentistry, particularly in Conservative Dentistry. However, the College remains positive that dental outreach clinics for BDS IV or BDS V students can be reactivated in future including the utilisation of Al-Nahdha Hospital.
- Students are informally encouraged to revisit core skills in the Clinical Skills Laboratory setting as part of self-directed learning in order to reinforce the vertical integration between the preclinical and clinical aspects of the Adult Restorative Dentistry Courses.
- The use of integrated dental clinics permits student exposure to a broad range of cross disciplinary patient care needs.
- In addition to taking responsibility for the clinical management of their patients, students are also expected to take on administrative responsibility of patient management such as making appointments, liaising and following up laboratory work.
- Students have access to a broad range of equipment, materials and instruments although there is always opportunity to enhance this, possibly with the eventual inclusion of CAD-CAM technology, CBCT imaging, rotary endodontics, etc.

#### **ADEE Panel Comments:**

- i. Close co-operation between faculty, staff and co-ordination across the courses strengthens the integration across the curriculum. Integrated oral healthcare, at ODC, is excellent and promoted because of the non-departmental structure of the College.
- ii. There are regular meetings attended by faculty from across the College in order to reach a consensus and these are well-documented.
- iii. There is added value when the role of the Quality Management System incorporates all the initiatives being undertaken in the College.
- iv. The well organised and structured comprehensive care, at ODC, simulates clinical practice for the future graduating dentist. It provides the students, at all levels of training with a broad and holistic perspective.
- v. There is an excellent staff/student ratio and relationship promoting a high standard of education and delivery of oral healthcare.

#### **ADEE Panel Recommendations:**

- i. The Panel recommend exploring the use of outreach clinics to support improvement of the philosophy of an integrated oral healthcare approach to dental treatment. It would be useful for ODC and relevant stakeholders to discuss all the options and avenues for setting up outreach dental training opportunities.
- ii. The Panel believe that ODC should strengthen their processes of disseminating information in order to raise awareness about the innovative and forward-thinking work they are undertaking in support of the integrated dental care for patients.

# Chapter 15 Other Influences and Student Affairs

## Overview:

The oral health needs of the population will continue to provide ample opportunity to ensure appropriate training for future dentists at ODC who should in turn contribute significantly to the oral healthcare of the local community. There remains a need to train more dentists in the region. There are a number extra-curricular facilities and opportunities on offer. ODC has a Student Council which also meets periodically with the Dean and Director of Administration. The focus for the Student Staff Clinical Liaison Committee is issues that relate to clinical matters. Counselling facilities, both academic mentoring and personal counselling, are readily available to all students. An optional auxiliary course in implantology is available to final year students and there are plans to extend these opportunities to include rotary endodontics training.

## ODC Analysis and Comment:

- Although initially considered as a risk factor in the first strategic planning period prior to the opening of the College purpose built clinical facility, patient availability is not viewed as an issue possibly due to a number of factors including:
  - The central location of the College, on MoH land, adjacent to a MoH primary health centre and close to a tertiary care MoH hospital
  - Availability of comprehensive oral healthcare to both Omanis and expatriates with only nominal appointment and administration fees
  - Word of mouth recommendations
  - Students actively participate in recruiting patients
  - Utilisation of the College by the MoH to replace loss of a significant part of the latter's dental outpatient department for 10 months
  - Student participation in promoting oral healthcare activities in public parks and shopping malls organised by the MoH.
- As the majority of students are non-native English speakers, the College needs to provide additional English language support in BDS I in conjunction with the academic courses which has a limiting effect on earlier introduction to clinical dentistry.
- The College has not received a fee increase since inception and is faced with rising academic and operational costs.
- ODC plans to introduce clinical mentors for BDS IV and for the same mentor to continue into BDS V in order to ensure continuity in review of student clinical attainment and progress.
- To date only one student has been referred to a personal counsellor and the initial consultation fee was paid for by the College.

### ADEE Panel Comments:

- i. The students were aware of what the ADEE visit is about and comfortable to discuss the College with the visiting team. They were positive about the courses and the support they receive to achieve their objectives. The Panel were fortunate to witness an open and frank discussion with student representatives from each year, including Foundation, BDS I, II, III, IV, V. They are extremely motivated, enthusiastic, open-minded students with excellent communication skills. The panel has been impressed with their teamwork skills, faculty engagement and social awareness.
- ii. Student counselling within the College appears to follow an “open-door” policy. The students are able to provide anonymous course evaluation and teacher assessment. The students do feel they can influence change through a variety of avenues, not least they are able to speak with the Dean directly.
- iii. The students described ad hoc opportunities to visit other hospitals(s) in the absence of outreach clinic rotas. The students described the initiative that some of them are involved with, out with the ODC, namely volunteering to provide oral hygiene instruction and oral health education in shopping malls. The Panel are led to understand that this is co-ordinated by dentists in the area.
- iv. The final year students stated that those students coming through in more recent years have been afforded the opportunity of clinical contact both earlier in the programme and overall across the programme. Equally they felt those coming behind them experience opportunities for broader clinical experience and exposure to patients.
- v. The increase in the numbers of ‘care planners’ for BDS III, from 3 to 6 has been extremely beneficial. The number of patients failing to attend for appointments is considered relatively high. Understandably responsibility for ensuring patient attendance rests with the students and depends very much on careful and constant communication between students and patients in preparation for independent practice. Students can treat patients who have come to ODC for emergency treatment and this is particularly useful if their own patient fails to attend.
- vi. The students believe they have enough patients to treat and experience sufficient variety of procedural skill-mix. The final year students feel confident to go out on graduation and practice dentistry and are clear on their level of competence and feel they know when and where to refer patients who may require complex or additional specialist care.
- vii. The students believe that the ‘clinical gateway’ assessment process works well. They are provided with good support if they struggle to achieve the requirements, enough to facilitate them moving on to the next stage of the BDS programme.
- viii. The students find it a useful exercise in the ‘Introduction to Clinical Dentistry’ Course in BDS III to undertake a series of clinical procedures on their colleagues, for example the delivery of local anaesthesia, fitting of rubber dam and scaling and polishing. On some occasions they will repeat these exercises on each other.
- ix. The students feel that the clinical skills, prosthodontic and other laboratories, the equipment and the materials available to them are very good. There is adequate access to new dental materials.
- x. The English course commenced in the Foundation year is highly respected by the students. The English course is very strong and very much appreciated by the students.

- xi. The students clearly understand why they need to learn the Basic and Allied Medical Sciences and they believe they are taught very well on the relevance to clinical practice. This is strengthened by the variety of projects that they contribute to and lead on which demonstrate the relevance to dental practice.
- xii. The students believe that they have a very high workload which provides them with limited time to study for assessments. They recognise there is much to complete and achieve with a programme that consists of 35 teaching and learning weeks. However the Panel believes that the ODC programme with 35 teaching and learning weeks, 4 assessment weeks, 1 study week and 2-4 weeks of summer clinics amounts to a student workload in common with most international dental schools.
- xiii. The students believe that all assessments are objective. They believe that their learning environment is safe and supportive. They appreciate 'Office 365' and the approachable staff in ODC. They believe that the mentorship process works well and they are fully cognisant of the value of the international input into their curriculum, it works well.

#### **ADEE Panel Recommendations:**

- i. The Panel recommend that ODC should reach out to the community both nationally and internationally, to support the aspirations for developing a dental graduate of a very high standard. In so doing there is an opportunity to formalise outreach teaching within the community setting. The Panel would encourage ODC and relevant stakeholders to facilitate the student's participation in such activities. As a result there could numerous opportunities for staff and students to present their findings at national and international scientific meetings.
- ii. The Panel recommend that ODC reviews the timetabling, if possible to consider providing a period of student self-study prior to ICA 1, although it is recognised this may need to be at the expense of reduced teaching and learning or holiday weeks.



## Chapter 16 Research and Publications

### Overview:

Staff, including resident and visiting faculty, make significant contributions to conference activities, postgraduate student supervision and publications. The international visiting faculty provide over 90% contribution to grant awards and publications in peer-reviewed journals.

### ODC Analysis and Comment:

- ODC is relatively young, is one of a significant number of standalone institutions in Oman that is not part of a university and its focus during the first strategic planning cycle has been on suitable provision of an undergraduate BDS degree programme. However ODC recognises the need to develop a research culture amongst faculty and students and this intent is included within the current strategic plan 2013/18.
- The inclusion of international faculty, who visit on a regular basis, in the College is viewed as a pivotal component in assisting the full-time faculty to gradually develop a research base and additionally there is infrastructural provision for a research area in the College building.
- However funding for research is recognised as being problematic for a standalone and small institution and the nature of research will tend to be more empirical and initially based on the utilisation of growing data available in the College. The Oman Research Council could however be utilised as a potential source of funding for these activities.

### ADEE Panel Comments:

- i. The panel's impression is that the focus for the College and its faculty as a whole has been striving for excellence in education and training of dental students - the delivery of a high standard BDS Programme. Whilst publications and presentations at conferences have been achieved by staff with input from undergraduate students, ODC recognises the need to develop its research base. There is evidence of efforts to promote research, particularly in the areas of Orthodontics and Restorative Dentistry and faculty from a number of courses do present at international conferences.
- ii. The Panel recommend that ODC explore the possibility of clinically based taught Masters programmes - MSc, MClin Dent. Once established ODC could look to attracting opportunities for doctorate studies.
- iii. It would appear that staff have utilised what the Panel understand to be around 15 hours of protected time, in their working week, to upload significant amounts of teaching material which can be accessed readily by students and staff through the excellent 'Office 365' portal or the VLE.
- iv. There is potential and the Panel were informed about initial work being undertaken to promote epidemiological research in Public Dental Health in partnership with Kings College London. The aspiration is to make an application for funding from the local research council along with matched funding in the UK.

- v. In terms of educational research, there is a wealth of opportunities to use the in-house e-learning in teaching initiatives to promote educational research and publications.
- vi. The Panel was informed of an initiative, in Orthodontics, about research being undertaken on behalf of the MoH/MoHE involving data collection on malocclusion in the country and that one ODC graduate is at present undertaking an MSc in Dubai in relation to this initiative.
- vii. The Panel were shown examples of a series of books that have been published by faculty and publications on a variety of topics as well as evidence of increasing presentations at conferences in the region and the inclusion of students in these initiatives.

#### **ADEE Panel Recommendations:**

- i. Faculty recognise the need to balance education and research. The Panel recommend that ODC build a research group which focus initially on one or two main projects. It would appear that the physical space to develop research is available. Topics such as a DMF survey (apparently the last one was at least 10 years ago) and denture wearing patterns in Oman may be worth considering. In addition there are clearly options for educational research. ODC should be encouraged and supported to promote research involvement with students, for example in collecting data and researching the literature.
- ii. The Panel would recommend the reappointment of a research co-ordinator. Initially the Panel would advise that the research focus should be one project. It is understood that ODC have an individual in mind who has the drive and motivation to take this forward. Community needs and education should be the major focus in a strategic research plan for the next five years.
- iii. A Vice-Dean for Clinical & Academic Dentistry is being recruited for at the present time. The Panel recommend that within this individual's roles and responsibilities would be the need to provide leadership and direction on research in ODC.
- iv. Given the integrated approach to the curriculum, this should provide a good base for an integrated approach to educational and scientific research. Engendering a research ethos within the student learning experience would be equally valuable. The Panel wish to stress the importance of implementation of evidence-based material into clinical case-based discussions and presentations. This stimulates a critical approach to researching evidence behind the delivery of a high standard of clinical provision for patients.
- v. Now is the opportunity to explore ways in which the faculty can utilise some of their protected time to develop research both scientific and educational albeit with the existing financial constraints. Their innovative teaching methodologies and approaches to assessment and quality assurance lend themselves to wider dissemination. Through the integrated approach to the curriculum this provides a good base for an integrated approach to educational and scientific research. Engendering a research ethos within the student learning experience would be equally valuable.

## Chapter 17 Quality Management

### Overview:

The quality assurance of ODC is driven through a structured Quality Management System (QMS) ensuring appropriate governance, administration, learning opportunities and assessment, underpinned by a series of policies and procedures. This reflects areas of best practice in an effort to reflect the Mission of the College until recently led by Professor Self, supported by a Quality Co-ordinator. Course evaluation takes into account student feedback and external review through external examiners, expert advisors and international visiting faculty. Teacher evaluation is undertaken and there are a series of internal reviews of the institutional provision, teaching and learning opportunities and standards of assessment methodologies. There is monitoring of graduate progression and regular visits from the MoHE to satisfy compliance with licensing regulations. There are a series of high profile quality reports and the College strives to publicise its activities and engage with the local community.

### ODC Analysis and Comment:

- The use of a single form for both course and faculty evaluation is used to reduce student fatigue as expected if repeated forms for each component are used. However ODC recognises the value in expanding details for areas to be evaluated, which is why introduction of a student survey based on DREEM is part of the current strategic planning period.
- By moving to the VLE to administer course, faculty and institutional evaluation, the College has provided students with complete freedom in deciding as to whether they wish to provide feedback or not whilst significantly reducing wastage of paper and printing and also streamlining data collation. However depending on student uptake and response rates this method will be re-reviewed.
- With the recent change to UCM as the academic affiliate a structured review of courses / subjects is being planned over time as part of the quality management process of course evaluation.
- ODC recognises the need to further enhance and fully implement its course and teaching analysis consisting of student feedback, teaching observations, faculty formal appraisals, review of external examiner reports that collectively, with subsequent discussion at Academic Council, will provide comprehensive course and teacher evaluation.
- With a background of generally positive internal and external quality reporting, ODC nevertheless recognises the need for ongoing self-reflection and improvement in its standards for teaching and learning. This is in part the *raison d'être* for the presence of Professor Samarawickrama as a Consulting Advisor.
- With respect to external quality management the intention is for external examiner reports and particularly those with recommendations for action to be reviewed by the College Academic Council but this is yet to be initiated.
- Together with its internal and external quality processes, ODC welcomes and views the ADEE visit as an opportunity to enhance the standard of its educational provision, to further its benchmarking to internationally recognised standards and to receive invaluable feedback in preparation for OAAA accreditation.

- ODC recognises the need to improve its website in particular with respect to updating detailed curriculum information and apprising the public of the extensive and comprehensive clinical services available.
- ODC also recognises the need to increase its press releases to increase public awareness of the presence and contribution of the College to the educational and oral healthcare provision in Oman.

#### **ADEE Panel Comments:**

The Panel have confirmed the following information, as stated in the Self-Assessment Document, on the position of ODC as a higher education institution, the relevant laws and regulations and the requirements of the College by the MoH and the MoHE in Oman:

- ODC was established as a legal and single entity in May 2006 as a stand-alone private higher education institution licensed, regulated and supervised by the MoHE. The College is consequently not part of the single public nor eight private universities currently in the Sultanate of Oman.
- ODC has close relationships with two medical schools with a number of ODC's part-time basic science faculty coming from these medical schools.
- Government policy in Oman has been to encourage the development of private higher educational institutes under the MoHE. In keeping with governmental regulations, the creation of ODC to offer its BDS degree programme was approved by the Higher Education Council through the MoHE in May 2006. In accordance with government regulations, ODC is licenced, regulated and supervised by the MoHE for its BDS foundation and academic degree programmes. All faculty appointments must be approved by the MoHE, which also makes regular inspection visits to the College to examine all areas of operation.
- The College is also licenced by the MoH for its provision of clinical care to the public and the MoH also issues clinical licenses so that MoHE approved faculty are able to supervise students in the delivery of oral healthcare.
- As stipulated by the MoHE, private higher education institutions offering degree programmes are required to have an overseas academic affiliation. In December 2013 the MoHE approved a new academic affiliation agreement between ODC and the University Complutense of Madrid (UCM).
- ODC, as with other educational health institutes in Oman, was required to submit details of its BDS programme for review by a joint committee of the MoHE, MoH and Sultan Qaboos University in February 2014 with a subsequent visit from a working group of the joint committee to ODC in April 2014.
- Responsibility for mandatory institutional and programme accreditation lies with the Oman Academic Accreditation Authority (OAAA). Accreditation by the OAAA is a two stage process consisting of Stage 1 formative Quality Audit followed by summative Stage 2 Institutional and Programme Standards assessments. ODC has successfully undertaken Stage 1 Quality Audit with good reporting and is currently preparing for Stage 2 of OAAA accreditation.

- viii. All higher educational institutes are expected to follow the Requirements for Oman's System of Quality Assurance (ROSQA) that include the National Qualifications Framework (NQF), in which an undergraduate degree is awarded at Level 4 following a normal minimum period of four years of study and 480 credit points or 120 credit hours. The five year BDS academic programme of studies at ODC consequently meets and exceeds the ROSQA standards in this area with the equivalent of 600 credit points or 150 credit hours.
- ix. In order to discharge its responsibility as a degree provider licensed by the MoHE of the Government of Oman, ODC has put in place a Quality Management System (QMS).
- x. In 2007, on the recommendation of the Dean, the College Board of Directors approved the formation of a high level International Advisory Panel (IAP) as a cornerstone of ODC to provide guidance in ensuring that the College operates to internationally benchmarked and accepted standards.

**In addition the Panel observed the following:**

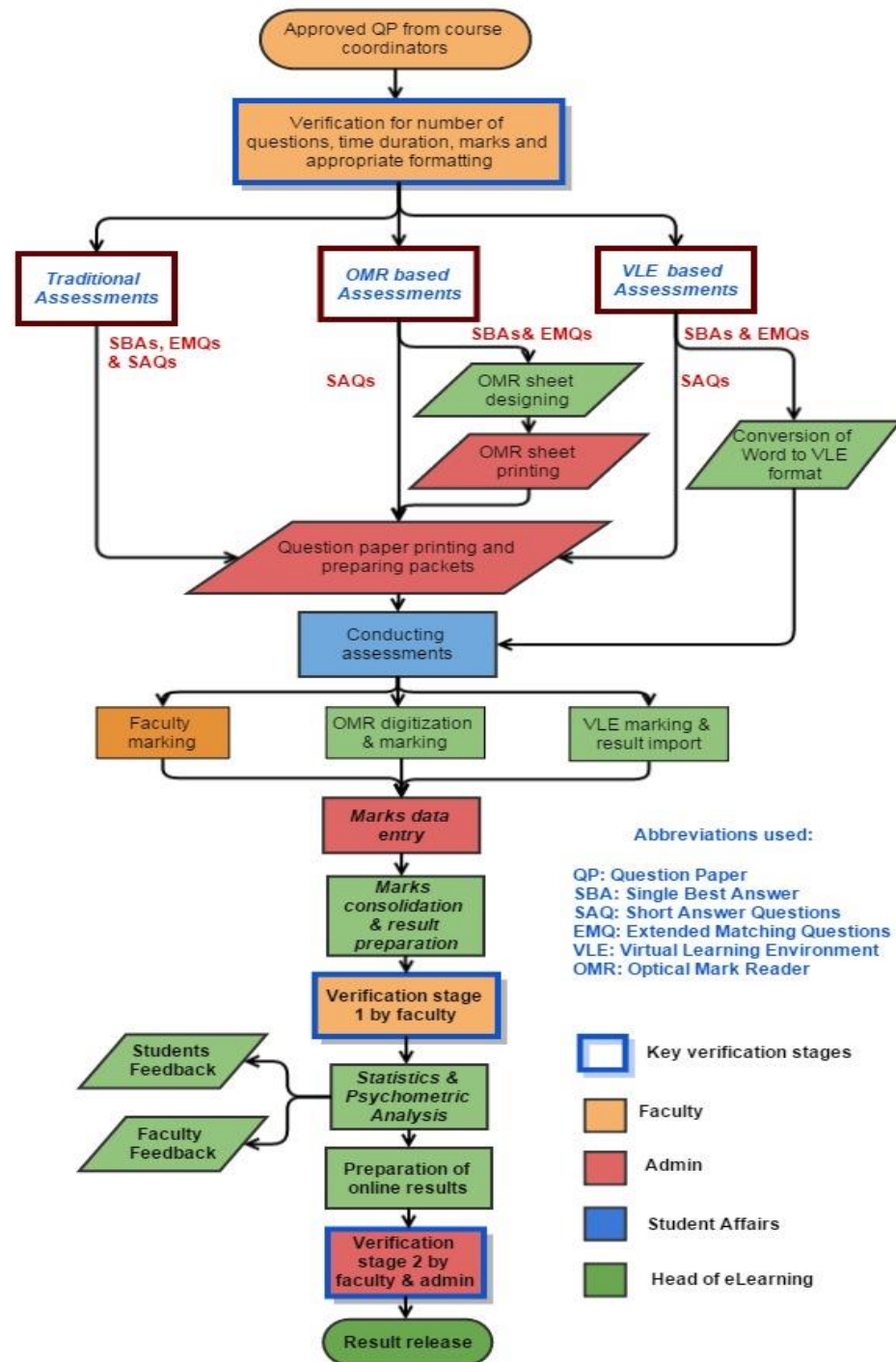
- i. As far as the Panel could judge, ODC is fully compliant with the by-laws of the MoHE and up until towards the end of 2014 had an experienced and reputable Head of Quality Assurance (Professor Self). Structured approaches to appropriate quality management are evident from the organisational structure of ODC and from the wide participation of the relevant stakeholders within the management structure.
- ii. The Quality Management team is to be congratulated for their tremendous work, their extraordinary achievements and their vision for their future. All faculty members, student and staff appreciate greatly that internal and external management methods are beneficial and encourage self-reflection and appropriate student and staff progression.
- iii. ODC has clearly identifiable structures and processes for quality management centrally. There is structured regular review of the curriculum with student learning outcomes and surveys taken into consideration. The use of external examiners and their input is to be commended as good practice. Much progress has been made by the College on quality assurance and the Panel commend the staff for all the hard work that has been undertaken.
- iv. Electronic patient records and digitalisation of diagnostic systems, such radiography, enhances the quality control of patient care and tracking of student-patient contact.
- v. Standard setting processes, Psychometric Analyses and monitoring of the digital clinical activity inputs, on clinic, are all excellent innovations. The input from in-house faculty and from external advisors is well recognised.
- vi. ODC is to be commended for its use of the ADRI process for reaching consensus on proposed changes and refinements through their Quality Management System. The Panel have advised, for example, the faculty in Restorative Dentistry and the Medical Sciences, who are already using a similar approach when making changes, to engage with the 'ADRI' process to ensure consistency of approach across the educational institution and its allied professions.
- vii. The Panel welcomed the presentation from the College's senior biostatistician who is spear-heading ODC's approach to standard setting and psychometric analysis of its assessment processes. It is clear that ODC is moving progressively away from the

traditional approaches and more to computer based assessments. The process described to us is displayed in the figure below. This has resulted in a consistent approach to, question setting, OSCE design, standard setting and this in turn provides a plethora of data which can be analysed to distinguish between student performances across the curriculum. Equally, these data can be used to support and strengthen the content of assessment and promote a robust structure for monitoring student progression and provide support for students where required, through the comprehensive but equally concise feedback to faculty and students. This form of feedback provides a valuable summary for both mentors and students to strive for improvement and excellence wherever possible.

#### **ADEE Panel Recommendations:**

- i. The Panel would recommend the appointment of a new Head of Quality Assurance, as soon as possible, to ensure maintaining the momentum for strengthening the College's excellent Quality Management System.
- ii. The use of the ADRI process to address issues is to be applauded and the Panel would encourage ODC to engage all faculty in its use to support enhancement of the curriculum.





## ODC Assessment, Quality Management Process

## Chapter 18 Conclusions and Overall Analysis and Comments

### ODC Conclusions:

- ODC commenced with a curriculum based on that of the initial academic affiliate from India, which was traditional in approach although contextualised to some extent through being backboneed on the UK GDC “*The First Five Years: A Framework for Dental Undergraduate Education*”. With input and assistance from the IAP, the College recognised the need to rearrange its curriculum to contemporary international standards based on the ADEE “*Profile and competences for the graduating European dentist*”.
- Subsequent appointment of Professor Samarawickrama as a Consulting Advisor provided impetus in reviewing and revising teaching, learning and assessment methodologies to coincide with the graduation of the first cohort. The subsequent academic affiliation with UCM has additionally provided a solid foundation from which to further integrate and align the ODC curriculum to internationally recognised standards.
- The curriculum content is being rearranged to align the learning outcomes and competences in a quantifiable and traceable way such that the spectrum of competences covered and assessed prior to graduation is known in its entirety and addresses the ADEE “*Profile and competences for the graduating European dentist*”.
- ODC has implemented a structured system for its curriculum, affirmed by UCM, consisting of core modules, courses and subjects, where a continuum of incremental and integrated learning takes students through defined learning outcomes that are measured through assessment, which is moderated externally in part.
- Curriculum content is competency based and is intended to reflect current best international practice in dental undergraduate educational provision.
- The BDS programme aligns with ECTS credits and complies with ROSQA / OQF standards in terms of student total workload requirements in that students must achieve 60 ECTS credits / 120 ROSQA credit points to progress from one BDS academic year to the next and 300 ECTS credits / 600 ROSQA credit points to graduate.
- Students are exposed to an element of problem based learning in BDS I and also in some BDS IV and BDS V clinical tutorials.
- Contact between patients and students commences in BDS III when students also attend mandatory didactic and practical basic life support skills training and following assessment are certified. However ODC recognises that an earlier introduction to clinical dentistry in a safe and incremental manner is important to consider.
- Student learning in the Basic, Allied and Medical Sciences core modules takes place in both a horizontally and vertically integrated manner with further spiral integration in the clinical context.
- There is also horizontal, vertical and spiral integration across didactic, practical and clinical learning in the Allied Sciences and Clinical Dentistry core modules
- The curriculum encourages student learning experiences that promote reflection, critical and investigative evidence based thinking.
- ODC recognises the need for further re-alignment and development of its curriculum to one which is fully modularised and in which courses / subjects utilise fixed and



multiples of ECTS credits. This is a task which will be undertaken with guidance from UCM.

- Whilst the College is implementing a student centred approach to teaching, learning and assessment it appreciates the need for further refinement of its BDS programme to be more student centred with greater emphasis on problem-based and self-directed learning.
- All assessments, including clinical, have clearly defined criteria, including structure and objectivity in addition to marking schemes that directly relate to the learning outcomes / competences being measured. Psychometric analyses are used regularly so that assessments can be refined on a continuous basis.
- Staff are encouraged to undertake research as well as further education and training and receive support in terms of available time within their nominal working hours. However ODC recognises the need to develop a more structured research base. The College also provides free English language support for those Omani support staff who request this.
- ODC has invested significantly in order to provide a contemporary infrastructure across all its facilities with the 67 dental chair outpatient clinical facility being the largest in the country.
- Consistently positive reporting from the BDS V external examiners, together with almost 30% from the first two cohorts of graduates having successfully passed the MFDRCSI examination to date, indicates that ODC is successfully aligning its BDS degree programme to that of the "*Profile and competences for the graduating European dentist*" and meeting international standards.
- ODC is the only dental college in Oman and is a primary source of quality oral health care for many low-income Omani and expatriate families and workers. The College prides itself in fostering appreciation, multiculturalism and diversity amongst the students guided by the faculty and staff.
- As a new institution, ODC has, not unexpectedly, faced and addressed many challenges with favourable reporting by the IAP, academic affiliate, Consulting Advisor, external examiners and others. Much has been achieved but much more remains to be done and there is now a need to consolidate the gains made so far and to make further progress. The College is the first to admit that the journey ahead is a long and an arduous one but the future remains bright.

### **ADEE Overall Analysis and Comment:**

- i. ODC is the first and only dental educational establishment in Oman and the Mission of the College is to provide quality dental education and contribute to the development of a national oral healthcare initiatives. The College is an asset to the country of Oman in these respects. The ADEE Self-Assessment Documentation was exemplary. It clearly demonstrated the drive, commitment, enthusiasm and innovation which the ADEE Panel witnessed throughout its visit. Senior staff, faculty, students and all those employed at ODC are rightly proud of their College.
- ii. There is evidence of clear and strong leadership in a Dean with vision & focus, a testament to the achievements of the College in such a short time since its inception.
- iii. Teamwork is clearly evident with excellent co-operation across the BDS courses. There are excellent relationships and loyalty displayed between the senior staff, faculty, students and support staff. This has clearly strengthened the collaborative approach to all areas across the College.
- iv. Additional physical space both locally and potentially at a distance from the College provides an ideal opportunity to expand the student and staff experience in terms of academic, clinical practice and research opportunities.
- v. A great deal of work has been achieved in support of the BDS curriculum. It has been well benchmarked, within EU guidelines (ADEE Profiles & Competences). ODC has demonstrated the presence of a well-integrated curriculum.
- vi. ODC is populated by a highly motivated and enthusiastic faculty and student cohort across all years including the Foundation course and BDS I-V. Many of the faculty have a wealth of experience from overseas and evidence of continuing professional development. The staff are glad to be part of this exciting educational institution, and it is vital that opportunities for career progression and promotion are strengthened. This will strengthen the processes of recruitment and retention of high calibre academic and clinical staff.
- vii. The Mission and aspirations of ODC would be greatly strengthened by increased engagement from external stakeholders. It would be beneficial for ODC to pursue support from government policy makers and the dental profession in Oman. Clearly this needs to be a two-way process. Ultimately this can only benefit dentistry in Oman and the provision of dental services to the people of Oman.
- viii. The high quality of this Dental College will deal with the demands and the needs for the population in Oman for the foreseeable future.

### **ADEE Headline Comments:**

- i. There is good support from the MoHE and ODC has a proactive, committed and enthusiastic Dean and faculty.
- ii. The facilities to support the BDS programme are of a high standard and there is scope to increase the use of additional physical space to support research development and clinical training, as well as promote postgraduate training and education.
- iii. Continue to further implement the ODC Quality Management System – much progress has been achieved and there is a willingness to maintain this momentum. Recruit a new Head of Quality Assurance as soon as possible to drive this initiative forward.
- iv. Pursue engagement with all relevant stakeholders to promote the excellent work of ODC in producing graduates of a high standard which in turn can only be beneficial for the oral health care of the Omani population.
- v. Build on an excellent base that ODC have created in terms of curriculum integration.
- vi. Formulate a clear strategic research plan with focus on the needs of the community, quality management and assessment processes and the educational activities which are already maturing across the institution.
- vii. Promote involvement, through partnership with external stakeholders, including government organisations, in a preventive approach to oral healthcare and enhance oral healthcare education for the Oman population.
- viii. Engage with government organisations and other relevant educational institutions to promote allied dental health profession training initiatives. In turn, this will promote the concept of training as a team and delivering oral healthcare through a structured team approach.
- ix. Revisit outreach opportunities, within the community and hospital services, to enrich knowledge, understanding and skills for both undergraduate students and the dental profession as a whole.
- x. Review student tuition fees in order to reduce the existing significant financial restrictions on ODC, whose primary role is as an educational training institution and the only dental training facility in Oman.

### **Innovation and Best Practice:**

- i. Through the Quality Management System - Quality Assurance processes and Psychometric analyses
- ii. Assessments and associated Standard Setting
- iii. Student monitoring processes and procedures
- iv. Integration of education, training and oral health care provision across the curriculum
- v. Sharing of experiences and skills between students through Patient Care Plans, Case-Based Discussions and Tutorial Engagement, including role-play
- vi. The panel recognise the exceptional value of the affiliation of ODC with UCM and the achievements resulting from consultation with its IAP and their expert Consultant Advisor.