INSPECTION OF THE BSc IN ORAL HEALTH SCIENCES

UNIVERSITY OF THE HIGHLANDS AND ISLANDS

16 & 17 MARCH, 13, 14 & 15 JUNE AND 15 JULY 2011

REPORT OF INSPECTORS

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OVERVIEW

The BSc in Oral Health Sciences at the School of Oral Health Sciences of the University of the Highlands and Islands is a three year programme offered at three locations throughout Scotland. Each student is located in a dental centre in either Inverness, Dumfries or Stornoway throughout the duration of the programme. The majority of teaching, in the classroom and in the clinical skills laboratory, is carried out by videoconference. This is usually delivered from Inverness,[1] where the majority of students are based. The School works with three NHS Boards and NHS Education Scotland (NES) to deliver the programme.

We were impressed with the excellent facilities in Inverness and the technology available to students across all sites. The efforts of the staff team to ensure consistency of teaching, assessment and marking across the three locations was commendable. The staff team, who were all committed and enthusiastic, are offered support by the University to undertake teaching qualifications. We noted that the students were professional and dedicated and many were from the area surrounding their dental centre.

The use of a variety of methods of delivering teaching ensures that students with different learning styles benefit and can feel more able to interact than they would in a traditional lecture or classroom.

We were pleased to see that the School operates a policy where a student must be confirmed as competent in a procedure in the clinical skills laboratory before they can undertake that procedure on a patient.

As part of the final clinical module, the students are required to complete a series of short answers on various topics. Each of these stems from a topic or question set by the tutors and students take it in turns to provide a response building on and responding to the answers of other students in the cohort. We felt that this was an excellent way for a subject area to be explored in detail.

Although we found that the technology used in the programme was state of the art, it was still on occasion subject to problems and glitches. At times it could also be more difficult for students at a site away from where the teaching was being delivered to feel as involved as those in the classroom[2].

We noted that some of the staff felt that the programme had always been understaffed and noted that there was still some recruitment to be completed. We were also told that the level of nursing support varied across the locations and may, in part, be due to the fact that the programme is delivered within three NHS Boards[3]. The variety in each

[1] Lectures and clinical skills sessions are delivered across teaching sites. Sample statistics show that approx 40% are delivered from Dumfries, 48% from Inverness, 10% by the roving Heads of School and 2% from Stornoway or visiting lecturers

[2] Classes are rotated around all participating teaching centres in order minimise the effect of this

[3] The SLA agreements with each of the Health Boards require a student: qualified nurse ratio of 2:1

Board's implementation of rules and internal politics also causes some difficulties. This has been particularly true regarding the teaching of radiography.[4]

The biggest concern for the inspectors related to patient access and treatment. There is a variety in the numbers and case-mix of patients available to the students between the locations. We were concerned by the length of time it took to produce a numerical summary of the procedures each student had undertaken and even more concerned by the variety in these numbers between and within centres[5]. We noted that some students had a undertaken a low number of procedures in some essential competencies at the end of the programme. These were increased to an acceptable level at the exam inspection, but we agreed that treatments must be more closely monitored, centrally, by the School.

The School needs to tighten up the documentation, regulations and the running order of the final assessments in the Clinical Practice III module[6]. It should also clarify the requirements to be met for a student to 'sign up' to the final examinations and also clarify within the documentation the assessments that are 'final' and those that are not[7]. There also should be clearer guidance on the level of performance that is required for a student to pass, or fail, in the final assessments and this should be referenced to ensuring patient safety.

Introduction and background

1. As part of its duty to protect patients and promote high standards, the General Dental Council (GDC) monitors the education of student dentists and dental care professionals (DCPs) at institutions whose qualifications are approved by the GDC. The aim is to ensure that these institutions provide high-quality learning opportunities and experiences and that students who obtain a dental qualification are safe to practise.

2. The purpose of the inspection visit was to assess whether the BSc in Dental Hygiene and Dental Therapy conforms to the GDC's requirements for the training of dental hygienists and dental therapists and whether, on qualification, students would be acceptable for registration with the GDC.

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[4] Teaching of Radiology is currently conducted from the University of Dundee. The difficulties of access to radiology equipment in Inverness are the principal concern of the department.
[5] This has been noted, and a more rigorous system of reporting has been developed
[6] The School regularly reviews the examinations pertaining to each module in the course. This first ever diet of examinations in the Clinical Practice III module affords an ideal opportunity for the School to review its processes
[7] "Sign up" for all examinations is dependent upon having successfully passed earlier modules within the course. For First Year modules, this relates to fulfilling the entry requirements to the course.
In relation to the Clinical Practice I,II & III modules, students must meet the stated requirements pertaining to Fitness to Sit for these examinations.
The term "final examinations" refers to all assessments which students are required to pass within the third year of the course. Of these assessments, the majority are evaluated by staff within the School, and subsequently verified by External Examiners. Clinical case presentations form the remainder of the assessments and require the attendance of the External Examiners who examine students in this diet.

3. This report sets out the findings of a two day programme inspection, three day examination inspection and one day examination board inspection of the School of Oral Health Sciences at the University of the Highlands and Islands, using the assessment principles and guidelines set out in Developing the Dental Team – Second Edition (Interim) 2009 (DDT) as a benchmark. The report highlights areas of good practice, but also draws attention to areas where issues of improvement and development need to be addressed. The report is based on the findings of the inspection and on a consideration of supporting documents prepared by the School.

4. The programme inspection took place on 16 and 17 March 2011. During the inspection, we met with academic and clinical staff of the School. We also met with other representatives of the University, representatives of the three NHS Boards involved in the programme as well as the students on the BSc programme. A number of the meetings involved a videoconference link to the satellite locations where the programme is also delivered.

5. Further inspections were made to the final examinations of this programme between 13 and 15 June 2011, and to the exam board on 15 July 2011.

6. The combined report will be considered by the Education Committee, or other delegated body, of the GDC. The School will be given the opportunity to correct any factual errors and then submit its observations. The report, together with the School's observations, will be published on the GDC website.

7. The University of the Highlands and Islands is a new university, having been granted university status in February 2011. It was previously known as UHI Millennium Institute.

8. The programme is a BSc of three years' duration and is based at three locations in Scotland. The University's principal offices are located in Inverness where the largest proportion of the students studies, with a steady state of eight students in each cohort. The programme has been delivered in Dumfries from the first year and four students from each cohort are based here. In 2011 a third location in Stornoway on the Isle of Lewis was added. Two first year students are based in Stornoway and this location will continue with a steady state of 2 students from each cohort. The inspection panel were based in Inverness and did not visit the other two locations.

9. Students are based at the same location for the duration of the programme, except when they are on a placement. The majority of teaching was delivered from Inverness[8], with some from Dumfries, Stornoway and occasionally from Dundee. It is delivered to the other locations by videoconference. The School utilises a variety of teaching methods and operates a blended learning approach.

10. The facilities at all three sites are modern and state of the art. Each location has a clinical skills laboratory, modern open plan clinic and a tutorial room. There are videoconferencing and 3D imaging facilities at each location. Students at each location have access to a variety of clinical placements within their local area.

[8] See comment number 1

11. The University works with three NHS Boards and NHS Education Scotland (NES). This is a challenge for the University as each Board has its own internal procedures and rules. For example, on occasion it has not been possible for all of the locations to be open on the same dates due to different observance of public holidays. In addition to this, Boards can have different interpretations of the governance rules relating to issues such as patient confidentiality and clinical photography.

12. Each NHS Board is driven by their individual workforce plans. Whilst there was a belief in training hygienist therapists in each of the geographical areas, there was some concern that all of the Boards may not continue to support the programme, due to changes to patient access and the impact of other initiatives such as the Aberdeen Dental School. The possibility of a bulge or surplus in newly qualified dental professionals in the regions would be monitored by the Boards.

13. The University was pleased with the low attrition rate on the programme and at the time of the report only three students across the three cohorts had withdrawn from the programme.

Programme content and delivery

14. The programme relies heavily on technology and it was recognised that this has both benefits and disadvantages. The inspectors understood that without reliance on this technology, the programme could not be delivered. Due to the great distance between locations, members of the staff team have to travel a great deal, despite the excellent technology utilised by the University[9].

15. Videoconference facilities are essential to the delivery across the three sites and we noted that these were very good. The videoconferencing facility is used for both lecture delivery and clinical teaching[10]. There is some time delay with this method of delivery, which takes a little time to adjust to. The staff we spoke to were comfortable with the videoconference delivery method and felt it offered several advantages to delivering lessons in a lecture theatre, particularly as the class size was small.

16. We noted that much of the BSc programme had been developed from scratch by the staff. Students have access to the programme material through the 'Blackboard' IT system. They can access lectures and other materials through this either at home or in the 'university/Board' building.

17. Students are taught head and neck anatomy in the 3D imaging suite. There are plans to increase the use of the 3D facility when technology allows and additional software has been developed. In addition, we saw that the facilities for teaching medical emergencies and decontamination were first rate.

[9] Travel by senior staff members is in order to assure quality and calibration of course delivery rather than necessity to provide face to face teaching

[10] The use of VC for clinical teaching relates to the tutorial component of Clinical Skills only. Close support is provided by tutors at each teaching site for these sessions.
Dedicated supervisors at each site supervise on teaching clinics. VC can be used to demonstrate relevant clinical procedures if required.

18. We were informed that students learn the most fundamental skills first. After two to three months they commence providing patients with oral hygiene instruction. Students told us that they were pleased with this early patient contact. After this they progress to performing basic periodontal examinations on patients. The programme leaders told us that the School spends some time and effort to ensure that students have the appropriate patients and cases at this point in the programme. Whilst they are making progress in clinic, the students are also taught in the clinical skills laboratories.

19. Detailed lesson plans are produced for each module, which are allied to learning objectives and are available to staff at each location. This has been developed to increase consistency in the experience of students across the three locations. All students get the same equipment in the classroom for each lesson and this is rigorously enforced by the programme leads. The University offers several other programmes using remote teaching methods and feels that it has expertise in this area.

20. To ensure consistency in marking and assessment across the locations tutors use detailed marksheets and adhere to strict marking criteria. In addition, double marking is used for written work. Students are assessed continuously throughout the programme.

Clinical experience and outreach

21. Students gain their clinical experience through working in the clinic where they are based. They also gain some further experience through clinical placements.

22. Students are supported by dental nurses in all locations. We were told that students do not work in pairs unless there is an educational benefit. The School aims to provide one dental nurse for two students. We were told that this ratio can drop if there are nurses on sick leave or if a post is vacant. There was a consensus amongst students and support staff that Inverness, in particular, would benefit from increased dental nursing staff. It was also recognised that the programme was not at the full staffing complement in other areas.

23. There are clinical tutors at each location, but we noted variation across the locations in the level of dentists and therapist tutors. Whilst students in Dumfries have good access to their tutors, none of them are dentists. This is something that the third year students, in particular, were conscious of[11].

24. We noted that students had a different amount of exposure to specific categories of patients and procedures depending on their location. Although it is quite possible for a student at one location to be very adequately trained even though they have had very different numbers of certain patients or types of procedure to another student, we felt that it is imperative for the School to monitor the exposure of students to various types of patients across the centres very closely[12]. We were told that while the students in Inverness had the advantage of gaining excellent clinical experience when on placement, there was a general lack of paediatric patients. However,

[11] Efforts are currently being made to increase dental tutor input to clinical teaching in Dumfries
[12] See comment number 5

students in Dumfries were not getting the clinical experience on placements that those in Inverness were, but had access to lots of paediatric patients[13].

25. We were told that the public access to NHS dentistry had improved in the catchment areas of the programme locations since the programme was commissioned. This has led to a decrease in the number of patients available for the students on the programme, but the complexity of cases has increased. As is mentioned above, the categories of patients and procedures varies between the locations. The students are dependant on referrals from general dental practice, dental students on outreach and from the programme tutors. The Board representatives and the programme tutors told us that they recognise there are challenges to ensure that students get access to the correct patients and procedures, and this was particularly the case for paediatric patients and extractions.

26. The programme tutors told the inspectors that they were confident that there were adequate pathways to get the right number and type of patients, but that these needed careful monitoring. We noted that several methods and initiatives to bring in patients had been used across the three locations to try to achieve adequate patient numbers and case mix. At one location an open day was held for local GDPs to explain the role of a therapist and discuss what work could be referred to students on the programme.

27. The School is aware of the issues with lack of access to certain patient types and procedures and is investigating ways to increase experience in extractions and paediatric patients. The option of students from one location visiting the other programme locations had been discussed. The School indicated that it would prefer that this did not happen, as they felt there should be adequate access at all locations. We felt that although this may be undesirable, it could be a short-term practical solution if there continue to be issues with patient access.

28. We were also told that there was some difficulty in scheduling patients due to timetable changes[14] and that booked patients were cancelled due to these changes.

29. We were told by staff that all clinical procedures undertaken by students, and the level achieved, were centrally recorded. There is continuous review of this data and a full review is held at the end of each semester. Due to the patient access issues and the potential for great difference across the locations used, at the inspection we requested to see an overall summary of the procedures undertaken by the students in clinic, but this was not provided[15]. Although, we acknowledge that the number of procedures undertaken does not necessarily equate to the level of competency, we would hope that students had been able to undertake an adequate number and variety of treatments. We requested that this was sent to us after the inspection as

[13] The participating Health Boards have indicated that the catchment groups differ, and discussions have taken place on how to increase student access to the various patient cohorts.
[14] Timetables are set at the beginning of the academic year, and clinics are organised at that time. Local changes may need to occur if students are absent for any reason, however the level of cancellation is minimal, and is monitored.
[15] We now understand that the information provided was in a format which could have been changed to facilitate its interpretation by the inspectors. The School has put in place rigorous monitoring of student activity in the hope that this will allow easier access to the information.

soon as the data had been gathered. We were disappointed that it took eight weeks for the data to be summarised and sent to us, though we noted it was current to a date around six weeks prior to the final examinations.[16]

30. As had been indicated to us at the inspection, the data showed some significant discrepancies in the treatment figures across the cohort. We noted that the range in the number of radiographs taken was unacceptable (the lowest had taken two and the highest 87[17]). We also noted that seven students had completed five or fewer restorations of deciduous teeth, and one of the students had not undertaken any at all. Additionally, there was a clear demarcation between the students in Dumfries and those in Inverness, with those in Inverness having undertaken on average six times as many adult restorations, but those in Dumfries had undertaken around four times as many paediatric restorations. The number of extractions of deciduous teeth was also low, with all apart from one student having undertaken three or fewer extractions.[18]

31. The low numbers of procedures in some essential competencies were a cause of great concern to the inspectors. As mentioned above, some students had no experience of certain procedures and one student had undertaken no extractions or restorations of deciduous teeth. We were informed that this student had not been put forward for the final examination. We were also told that the deadline for sign up had been extended for three other students until two weeks before the final examination. Due to the length of time it took to produce the summary of treatments and the low numbers in some essential areas we had significant concerns about how rigorously the School monitored student experience throughout the programme.

Staff issues

32. Clinical staff are normally NHS employees, which reflects the investment and commitment of NES and the three NHS Boards into the programme. However, many of these staff are also able to take advantage of their affiliation with the University. Members of staff have been supported by the University to take teaching qualifications relevant to the programme.

33. We were told that staff were working well as a team and the programme leaders were very happy with the recruitment that they had undertaken. A number of members of the staff team told the inspectors that they felt the programme was slightly understaffed and had been since the start. They felt that they had to do most of the lesson and other planning outside their contracted hours. We were informed that there were vacant posts being recruited to at all locations and when this is complete it should solve some of the staffing issues.

[16] The School has guidance on the variety of procedures required but would welcome a clear indication of what would constitute adequate numbers of each procedure.
[17] The School is aware of the difficulties in access for the students to radiographic facilities, and the number of radiographs completed was monitored up until the final Fitness to Sit meeting. The students who were deferred from the case presentation component of Clinical Practice III for reasons of competence were in fact those whose numbers were low, and this has been addressed within the revision course.
[18] We welcome guidance on what constitutes a low number of extractions. In agreement with the Health Boards, sessions are being set up for students to participate in GA extractions for paediatric cases.

34. We noted that the support staff were well qualified and enthusiastic about the programme and the students. Clinical staff across the sites were very positive about the programme and were clearly committed. They felt well supported by both the School and the support staff.

Student issues

35. We met with all current students on the BSc programme. The students were from various locations across the UK, though the majority were from Scotland. The students had either previously worked as a dental nurse or entered the programme straight from school. Some students told us that they would not have been able to access other training programmes in hygiene or therapy as they would not have been able to travel or relocate to study elsewhere due to personal commitments.

36. Students work with dental nurses whilst on the programme and do not work in pairs apart from on occasion where the tutors feel that there would be an educational benefit. We were told that there were differences in the nursing support available at each location.

37. The students work alongside dental students. Dundee and Glasgow dental schools have outreach placements in Inverness and Dumfries respectively. There are also plans for dental students on the Aberdeen BDS to go to Stornoway.

38. The inspectors felt that the students had a very professional outlook and were dedicated to the programme. We noted that the majority of students had limited time for a social life, as is often the case for hygiene and therapy programmes.

39. The students told us that they liked the variety of teaching methods employed on the programme and that certain methods suited certain learning styles. For example, a student that is quiet in a traditional tutorial may become more involved when using an online chat room. We felt that this was a significant benefit of the programme.

40. The students felt that it took some time to get used to teaching via a video link. We were told by the students that this method worked well if the tutor delivering the lecture was used to this delivery method and they were considerate of those not in the actual classroom. The inspectors noted this and it was helpful for the inspection panel that several of our interviews were held in this manner. We agreed that it takes some time to get used to, but felt that it was certainly possible for the programme to be successfully delivered by this method.

41. Whilst the students were very pleased with the technology used in delivering the programme, they explained that technical problems with the videoconference facilities could be frustrating. Some students told us that they occasionally had difficulty hearing what was said over the link and that it was more difficult to benefit if you were not assertive. It was recognised that without these advanced facilities that the programme could not run and the School was aware of the issues

42. The students in year 2 were pleased with the amount of clinical practice that they had gained at that point on the programme with two full days on clinic each week. It was recognised that there were differences in the volume of various types of patients

that they saw between locations and some students reported that some of their competencies from the first year had to be rolled over to the second year due to a lack of patients. They felt that working in a clinic with dentists and with dental students and closely with dental nurses gave them the ability to see a fuller clinical picture.

43. The third year students in Dumfries felt that they had more attention from their tutors than those in Inverness due to the lower student numbers[19]. However, they were concerned that they had lost out a bit as they did not have as much experience with patients, in general, as those in Inverness. They told us that this was due to spending less time in placements. They felt that this made it harder for them to achieve the required competencies. Additionally, as the students near the end of the programme, they felt it was harder to get a tutor to sign off a competency as the tutor's time was taken with other students.

44. The students felt that the teaching in radiography could have been better as it was delivered from Dundee. Although the students agreed that the radiography teaching they received was of a high quality, they felt that face to face teaching was particularly important for this subject. The programme leads agreed that this teaching would, ideally, be done in a different way, however, they were not permitted to use the local radiography facility.[20]

45. The students felt well supported by the staff team, both academically and pastorally. They also felt that their concerns were listened to. Despite this, they indicated that they would prefer to receive more detailed and timely feedback on their performance at assessments, as well as be provided with more guidance on all assessments. Additionally, there was some concern amongst the students, particularly those away from Inverness, that they were only taught a certain way of undertaking procedures and this may not be the 'right' way. We felt that the School has a crucial role to play in making sure that all students are taught that there are different approaches to clinical work.

46. Students in year three are encouraged by the School to think about their career. The School tries to help the students with their next steps and looks where they can assist in placing students upon leaving.

Assessment

47. We were pleased that before undertaking a procedure in clinic, students must be signed off as competent at that procedure in the clinical skills laboratory.

48. Students are assessed using a variety of methods. These included observed competencies, OSCEs, essays and projects. We felt that the mix of assessment methods was appropriate, though there is further work to be done to improve application and documentation relating to the assessments.

[19] Staff / student ratio at each site is 1: 4. There may be a perception amongst students that smaller groups provide opportunities for closer support, however statistically this is not the case.
[20] The School will reflect on how best an image-based subject, similar to other modules within the course, could be taught across three teaching sites

49. Students sit their final examinations at the end of the third year. We were informed that the School had extended the date for the fitness to sit panel, which confirms final sign up to the final exams, to two weeks before the examinations. This was to allow seven students the opportunity to increase the number of procedures they had undertaken. We were told that the fitness to sit panel decides whether a candidate can take the three final case presentations, but not the OSCE, radiography assessment or other assessments. Throughout our three visits to the School, we could not find any documentation that adequately explained the sign up process and why some assessments were not considered part of the final assessment[21].

50. Students complete a clinical logbook, which contains treatment data and grades. We were told that data relating to each students on-going clinical performance is held centrally and at the end of each semester, student experience and performance is assessed and must be satisfactory to progress to the next semester.

51. When reviewing the documentation at the final examination inspection, we were concerned that it appeared that a student had been 'signed off' as competent in a procedure at their first attempt. We asked how this was justified. We were told that passing a competency does not mean that a student is competent at that exercise – it was explained that it only means that the student has competently completed the exercise on that occasion. It was not clear at what point a student would be considered as competent at a particular procedure, as the inspectors were not provided with any guidance about this. We felt that for consistency and auditability, that there needed to be clear written rules about what is expected of a student for them to be considered competent at a procedure, rather than having undertaken a procedure competently.

52. We were told that students are signed up to sit their 'finals', by the fitness to sit panel, if they had passed all previous modules and had undertaken sufficient practical clinical experience. We felt that there was generally a lack of clarity in the documentation and had some difficulty establishing the correct facts. We believe that the School should have a master set of documents or regulations that contain the most up-to-date information about the programme, particularly regarding the status of the various assessments, requirements for clinical competence and rules for re-sitting and carrying marks forward. These should feed into the other documentation produced for the BSc.

53. We were pleased to note the use of 'blind' double-marking and structured marksheets for a number of assessments. We noted that the School used two experienced external examiners who had been involved with the programme from an early stage.

54. One section of the final Clinical Practice module was to complete online short answer questions. We were impressed with the format of these, where students would each provide responses to question threads, building on the input of each other. We felt that this provided an opportunity to really delve into and explore a topic.

[21] The School believes that this documentation was presented, but we will be happy to review the format to make it clearer.

Final examination inspection

55. The BSc is a modular programme and does not have a final assessment in the same way as some other hygiene and therapy programmes. Students are required to pass the final clinical module, Clinical Practice III (CPIII), and cannot compensate this module with any other modules.

56. The components of the module were a Portfolio Assessment of Practical Competence, Periodontics Case Presentation, Adult Restorative Case Presentation, Paediatric Case Presentation, an OSCE, the online short answer questions (mentioned above) and a summative assessment of practical skills in radiography. At the final exam inspection we also had the opportunity to further review the student treatment numbers and individual student treatment records, which the fitness to sit panel also looked at and achieving the acceptable standard forms part of the requirements for this module.

57. Both External Examiners for the BSc programme were in attendance and observed the same examination components as the inspectors. For the case presentations, the External Examiners were each paired with a programme lead and examined the candidates. The External Examiners told us that they were not involved with the sign up process, but only with the final assessments. The School may wish to consider seeking external examiner input into the sign up process.

58. The first exam that we saw was the Portfolio Review. Though it was listed as one of the elements that must be passed in the module, we were told that it was an 'internal examination[22]'. A student progresses to the CPIII module by passing their previous modules; however, 'sign up' to what the School classifies as finals is done within the final semester. Upon further investigation, we found that the School considered that only the case presentations were external, final examinations with the other assessments considered internal, including the OSCE and radiography assessments. We found these classifications unusual, as although there was a requirement to pass all of the assessments, some had a strong formative element, yet covered the assessment of learning outcomes not covered in the case presentations. The inspectors agreed that they could not limit the scope of the examination inspection to the case presentations, as so many learning outcomes were not necessarily directly tested within these.[23]

59. We were unsure of the purpose of the Portfolio Review, as we did not consider it was a stern test of a student's abilities and the information in the portfolios was being evaluated as part of other assessments. The portfolio examined did not contain details of the clinical experience of students; this information is held elsewhere.

60. We noted that, perhaps due to a lack of information available, students appeared unsure about this assessment. There were significant differences in the content of portfolios and the assessment appeared to be a general chat about what a student had done. We could see no criteria for passing or failing this assessment, which

[22] Please refer to comments number 7

[23] The inspectors were invited to attend all assessments taking place within the examination week, and had access to scripts from the written assessments for all modules covering the entire range of learning outcomes for Year 3.

seemed to be undertaken in the format of a progress review meeting. When the inspectors reviewed the portfolios we noted that there were often elements of the portfolio, including checklists, which had not been completed. We noted that these omissions were not addressed in the assessment.[24]

61. The examiners spilt into two pairs, each with an internal and external examiner. We noted inconsistencies in the approach from the two sets of examiners, with one pair using greater structure in their questioning and providing the candidate with more information about the purpose of this test. We felt that this assessment needed a great deal of work before it could be considered a robust assessment of a student's abilities[25].

62. We learnt from these assessments that a good number of students wanted to undertake vocational training to gain more experience, with one student commenting that they did not feel confident about going into independent practice. A number of students indicated how helpful outreach in Elgin had been to get up to speed clinically and to increase their confidence.

63. We next saw the Periodontics case presentation, which we were told did form part of the 'final assessment'. The examiners marked this exercise independently, agreeing a mark at the end. We were a little concerned that when the examiners were agreeing marks; if there was a discrepancy the examiners did not appear to consider the implications of agreeing to compromise between a score of 45 and 55 with a score of 50. This is the line where a candidate passes the exercise. Effectively, the examiners were compromising between a pass and fail by agreeing a pass. We noted that one candidate achieved a score of 50, an absolute minimum pass, in all three case presentations.[26]

64. We noted that the examiners asked some questions in restorative dentistry during this periodontics exam, even though the candidates also undertake a restorative case presentation.[27] We also noted that one pair of examiners were much more strict with timing that the other pair – the first pair stopped the student mid-answer when their time was up, whilst the other allowed them to finish their response and even, on occasion, asked further questions after the time limit had passed. It seemed that it would have been fairer if the examiners had more time to ask questions, or if there was greater structure to the questioning. We felt that the School needs to prepare marking guidance for the examiners to ensure that all students are treated in the same manner for each exam. This should include how a disparity in marks between examiners is moderated, specifically when a pass or fail decision is required.

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[24] Criteria were given to examiners for passing or failing this assessment, and these were available to the inspectors. We note the comments and will ensure that these are more visible.
[25] The Portfolio Review was conducted by internal examiners. External Examiners were invited to sit in on the session for observation.
[26] As internal examiners, we are slightly concerned at this comment, as the School has a policy of full deliberation between examiners, particularly where there is a possibility of the student failing the examination based on one set of marks. If there is ambiguity about this process, we will review the procedure to ensure transparency of this deliberation.
[27] This assessment was of the holistic care of a patient receiving principally periodontal treatment. The holistic nature of the case meant that questions within the wider remit of restorative dentistry were thus relevant

65. For the adult restorative case presentation, we also noticed that a significant proportion of the presentation involved periodontics[28]. We observed a general trend that students had had more clinical success in hygiene work than work related to therapy outcomes.

66. The last assessment of the module and of the BSc involved three OSCE stations. These were not considered by the School to be part of the 'final examination'.[29] We noted that some skills were assessed here that would not be assessed elsewhere in the BSc assessments. We noted that students were given a slightly inconsistent experience on one of the stations. We thought it strange that students were allowed four attempts at the OSCE and were given feedback on their performance between attempts. We felt that it was strange that the last assessment of a programme should be a formative assessment and agreed that the School should review this. The School needs to consider how it combines final exam and modular assessment systems.

Exam Board

67. At the exam board we saw documentation that stated the CPIII module is the clinical finals, but were again told that not all of the module is considered as 'finals'. We felt that the case presentations were not really robust enough to be considered as equal to a 'big bang' final exam seen in non-modular programmes, though we agreed that the range of assessments across the entire module would be considered comparable.

68. We were concerned that the low treatment numbers in some areas for some students were not identified at an earlier stage in the programme. We were also concerned with the marking scheme for clinical work and its application. A scale of 1-9 is used, with a mark of 4 considered a pass. We would understand a score of 4 to mean satisfactory or bare competence as it is classified as a pass. We noted that students were seldom awarded with a score of 4 or below when we reviewed the clinical experience records. We noted that a student was denied entry to the final exams/case presentations as they had received one mark of 3 and a mark of 4 on a few occasions in the final semester. We found this unusual as a score of 4 is a pass and should mean, at least, that the student has satisfactorily and safely completed that procedure. The School may wish to consider using a shorter range of marks in the marking scheme or revising the application of the scheme.[30]

69. We felt that the tiered approach to the exam board agenda worked well. The scores achieved across a module were examined first before the performance of individual students was considered. We noted that one candidate had scored the minimum amount in each case presentation, as mentioned above, but noted that their

[28] As this case involves the holistic care of a patient who has received mainly direct restorations, it is not unreasonable to ask about the periodontal aspects of this care.
[29] These assessments are to address learning outcomes in Clinical Practice III pertaining to domiciliary and special needs patient care. They do not require the presence of an external examiner. They have now been moved to earlier in the academic year.
[30] This student was deferred on the basis of several factors, including a grade 3 (unsatisfactory) given for a clinical procedure immediately prior to the final Fitness to Sit Panel.

performance was not discussed at the board[31]. In fact, we did not see evidence of any discussion of this student's very borderline performance across the case presentations at any point.

70. For the final year students, two were deemed not fit to be entered into the finals and will do a semester of intensive clinical work. One student is scheduled to re-sit in January 2012. Another student failed and according to the School's documentation would have to retake all of the case presentations. However, the exam board considered the University regulations, which stated that the student could be offered a viva voce and agreed that this would be implemented. Should the student fail the viva, they would have to retake all three case presentations. We felt that this was another example where the School must tighten up its regulations so it is clear about the course of action under different sets of circumstances. We agreed that the School should refer to the question of whether they feel a student is safe and competent to practise throughout their discussions, as this is the key decision they are making and they are signing off the students as safe to practise at the end of the programme.

71. At the Board, it was agreed that the School needs to look closer at a student's experience and performance at several stages throughout the year, not just at the fitness to sit panel meeting. This is something that the inspectors strongly agreed with.

72. After seeing all records and assessments, the inspectors felt that those in this cohort who passed all assessments and were awarded the BSc should be allowed to apply for registration with the GDC. For this cohort many additional clinical sessions were hastily arranged at the end of the programme and this meant that the students had all completed sufficient number and variety of treatments to achieve competency. In order for a sufficiency for registration decision to be made for the programme, we felt that several improvements should be made. These required improvements are detailed in the body of the report, above and in the list of requirements, below.

Conclusion

73. We were, generally, satisfied that the curriculum is being delivered as proposed in the original submission to the GDC and that it conforms to the GDC's principles and guidance as published in DDT.

74. We recommend that those students in the first cohort, who were awarded the BSc, should be allowed to apply for registration with the GDC and the programme be granted 'short-term sufficiency'. A further inspection to determine the 'sufficiency' of the BSc in Oral Health Sciences should take place in 2012 and should focus on seeking assurance that the requirements, below, have been addressed.

[31] Thank you for this comment. We have arranged that the discussion of borderline candidates is made a standing item on Exam Board agenda.

REQUIREMENTS

To the School

- That the School adopts a more rigorous approach to monitoring the case mix and amount of clinical procedures that each student has undertaken (24, 25, 72)[32]
- Clear documentation regarding how students are judged to be clinically competent (capable) in a procedure should be produced (51)[33]
- The sign up requirements for the final clinical examinations should be clearly documented. These should include a requirement for a student to have proven their competence in all essential clinical tasks (49, 52, 58)[34]
- The School should reconsider the order of the final assessments in Year 3 (66)[35]
- The School should ensure that students are taught a variety of clinical techniques, where appropriate (45)[36]
- Examiners should receive training and guidance in the conduct and marking of final examinations (60, 61, 63, 64)[37]
- The regulations relating to re-sits should be clarified (71)[38]

To the GDC

- That a further inspection is carried out in 2012. This inspection should focus on the recording and level of clinical treatments in all areas, the documentation or regulations regarding assessment, progress and sign up to final (module) examinations.

RECOMMENDATIONS

To the School

- The option of moving students between University locations as a short term solution to the disparity in certain patient types and procedures, should be explored further if required for future cohorts (27)
- Consider how face to face radiography teaching could be achieved (44)
- The School should consider using external examiner input in the sign up requirements for final examinations (57)
- Review the effectiveness and application of the 1-9 mark scheme (68)

[*NUMBERS IN BRACKETS REFER TO INDIVIDUAL PARAGRAPHS WITHIN THE MAIN BODY OF THE REPORT*]

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[32] Weekly students activity sheets are now collected across all years. A GA extraction list has been set up with NHSH. NHSH has agreed to placements in paediatric dentistry clinics for third year students. NHSD&G is looking into ways of funding more dentist input to therapy teaching. Agreement has been obtained between NHSD&G and University of Glasgow to better integrate therapy and dental outreach clinics with the expectation that more adult patients will be seen

[33] This judgement will be made by a fitness to sit committee and will be based on gateway assessments, observed clinical procedures, quality of clinical care and amount of clinical experience

[34] The documentation has been amended and competence judged using criteria described previously

[35] Timetabling for 2011-2012 will ensure this does not occur

[36] Technique variations where appropriate will be taught

[37] Further guidance and training will be made in relation to the module examinations for third year

[38] Further documentation will be issued in this regard