

A web-based distance learning programme for degree-level tissue viability education

This article describes a 16-week degree-level web-based distance learning programme provided by Cardiff University. The unique design of the programme provides students with flexibility when choosing tissue viability modules, and the remote nature of the course also allows students to develop a learning package to suit their individual needs. This format ensures that geography is not a limiting factor. The course provides a foundation for those wishing to continue their studies at higher degree level, and the web-based nature of the programme also develops transferable skills, particularly in relation to virtual learning.

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KEY WORDS

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Interactive study

In October 2006, the Department of Wound Healing at Cardiff University launched its Level 3 wound healing foundation modules (tissue viability) in diabetic foot ulcer management, leg ulcer management and pressure ulcer management. These modules were developed in response to increasing demands from healthcare professionals who wanted flexible study opportunities in the field of wound care. The modules were designed to bridge the academic gap between wound-related diploma courses and Cardiff University's MSc in Wound Healing and Tissue Repair.

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Although primarily aimed at qualified nurses and podiatrists, the modules are also open to other healthcare professionals who work with patients that require wound management on a day-to-day basis.

These 16-week self-directed, web-based distance learning modules constitute 30 Level 3 credits which are awarded upon the successful completion of each module. The unique design of the modules allows students the flexibility to choose to study one, two or all three of the modules, and each one introduces the non-graduate student to degree-level study with an emphasis on clinical application. The modules also provide an excellent foundation for those students who want to continue their studies at a higher level by enrolling on the Wound Healing and Tissue Repair MSc course.

Educational philosophy

All students undertaking the modules will have specific learning needs, depending on their previous knowledge and experience and their current professional occupation.

There are three modules in all — Foundation in Diabetic Foot Ulcer Management, Foundation in Leg Ulcer Management and Foundation in Pressure Ulcer Management — and the distance learning programme itself is based on the following principles:

- ▶▶ A focus is on learning rather than teaching
- ▶▶ Active involvement of students who have ownership of the learning, assessment and reflection processes. The learning is student-led and reflection on theory and practice is encouraged. The student can study each module at home, at a time and pace that is set by them
- ▶▶ Multiple and varied opportunities for learning
- ▶▶ Emphasis on the integration of theory and practice in order that students learn to bring these concepts to their everyday practice
- ▶▶ Focus on students' analytical skills, and their ability to apply these to practice.

Teaching strategies will aim to reflect the following:

- ▶▶ The requirements of the module under study, e.g. the diabetic foot module has more formal learning tasks
- ▶▶ The diversity of student learning styles — each student can learn at their own pace whether they work through the module material very quickly (impulsive learners) or take time to complete the work (reflective learners)
- ▶▶ The existence of varied and substantial professional experience. The modules are designed for students who are new to a topic area by providing baseline

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information but are also suitable for those students who may be consolidating many years of clinical experience by making them reflect on this experience.

Mode of delivery and attendance

The modular approach gradually develops a foundation of tissue viability knowledge via a workbook with online tutor support. As distance learning does not require classroom attendance, students can pick when and how they study. The traditional didactic approach is replaced with the student choosing from a variety of learning resources, which can complement their particular learning style.

The modules look at multidisciplinary teamwork and students are not only encouraged to apply the knowledge and skills gained from each module in their own professional specialty, but also in other areas of practice. Each module must be completed within a 16-week period and should include 300 hours of study. These hours are allocated in the following blocks:

- ▶▶ Module introduction — six hours per module
- ▶▶ Workbook — 140 hours per module
- ▶▶ Assignment — 60 hours per module
- ▶▶ Reflective essay — 20 hours per module
- ▶▶ Self-directed study — 36 hours per module
- ▶▶ Online tutorials — eight hours per module
- ▶▶ Application to clinical practice — 30 hours per module.

The modules are scheduled to run twice a year, according to demand. The fee for each module, starting in January 2008 is £600.

Online facilities

Students are encouraged to develop their knowledge by undertaking various activities — these include reflecting on specific areas of practice, accessing information online and providing feedback, exploring specific areas of practice at a local level, and reading relevant articles.

Support is provided through the use of module-related online chat rooms and discussion forums in addition to individual

tutorial time. The tutorials are all done online and can be in the form of group tutorials or individual tutorials.

Allocation of time for coursework

The time required for studying may vary and students may find they need a longer or shorter time period depending on their knowledge and experience. However, students' individual needs can be geared to the module content. The greatest difficulty most students have is in keeping themselves motivated and studying on their own.

Group support

When studying remotely, peer support for students is very important. They are encouraged to access the online chat room and bulletin board as it is helpful to share common difficulties with other students. Every student has an individual profile on their homepage, containing basic information and they can add a photograph which can be seen by their fellow students. Information on module topics can be exchanged via the bulletin boards, which have 'Your news and views' and 'Your Journal Club' sections where new articles or interesting findings can be shared.

Personal tutoring system

Student support is available online via individual homepages and e-mail. Students' first line of communication is via email through their Wound Healing Research Unit (WHRU) homepage — this provides a permanent written record of all messages sent and received. In most instances, contact with a personal tutor is available 9–5, Monday to Friday, with the exception of public holidays. However, to overcome time zone differences or problems that some students may have emailing during office hours, group and individual chat room sessions with a tutor can also be accessed in the evening and occasionally at weekends.

Students have a right to expect their individual learning needs to be recognised. However, it is also their responsibility to identify any gaps in their learning or any problems related to professional development. The module team is made up of many individuals with diverse professional and academic knowledge, and

students can contact them at any time to discuss a particular area of interest.

Web-based module workbooks

Module workbooks are accessed via the student homepage on the WHRU website and contain referenced texts specific to each module. Workbooks are written by specialists within the field and contain the following features:

- ▶▶ Interaction, which is centred on students' needs
- ▶▶ Self-assessment questions and summaries for student reflection
- ▶▶ Further reading lists that are linked to online discussion forums
- ▶▶ Links to sources of evidence-based literature
- ▶▶ External links to the Cardiff University library and email services.

The content of the module workbooks has been reviewed by specialists in each area and the material is continually updated. Access to this material is password protected and is available only to students registered on the module.

Course objectives

This course provides an examination of the current evidence for the prevention and management of diabetic foot ulcers, leg ulcers and pressure ulcers. The philosophy of each module is that effective management must be allied to the key themes of quality, multidisciplinary care and patient partnership.

It aims to enable students to analyse their current practice and identify knowledge and skills that will improve patient outcomes. With the focus on patient partnership, the aim is that students will develop a creative approach towards the assessment and management process, enabling them to improve prevention strategies and provide tailor-made care.

Students will be encouraged to analyse current theories and practice in relation to ulceration and their management and prevention which will enhance their ability to contribute to multidisciplinary care. The module will also focus on the relevance of clinical-effectiveness, audit and risk management,

as well as students' legal and professional accountability.

Foundation in diabetic foot ulcer management

Module aims and objectives

This module will demonstrate that greater understanding of lay health beliefs and health promotion will enable students to work with patients to develop treatment strategies. After completing this module, students should be able to:

- ▶▶ Discern the underlying pathologies of diabetic foot disease
- ▶▶ Determine the key principles of assessment for those who have diabetic foot disease and link this to risk management
- ▶▶ Identify and analyse the scientific evidence for diabetic foot ulcer management and prevention within a multidisciplinary framework
- ▶▶ Examine local service delivery within the context of National Institute for Health and Clinical Effectiveness (NICE) clinical guidelines, the National Service Framework and other guidelines
- ▶▶ Examine the impact that psychosocial factors have on a patient's quality of life and identify the practitioner's role in health promotion strategies.

Outline of module content

The contents of the module are as follows:

- ▶▶ Section 1: Principles of assessment for diabetic foot disease
- ▶▶ Section 2: Principles of diabetic foot ulcer management
- ▶▶ Section 3: Quality issues
- ▶▶ Section 4: Multidisciplinary teamwork and communication.

Foundation in leg ulcer management

Module aims and objectives

After completing this module, students should be able to:

- ▶▶ Distinguish between the different causes of ulceration and its associated pathophysiology and relate this to epidemiology, risk factors and assessment
- ▶▶ Review the practitioner's role in the assessment of patients with leg ulcers and explore the evidence for undertaking a comprehensive assessment
- ▶▶ Identify and analyse the scientific

evidence for leg ulcer management and prevention

- ▶▶ Review the role of Doppler and Duplex ultrasound in assessment of the lower limb
- ▶▶ Appraise the evidence for compression therapy and relate this to current practice
- ▶▶ Explore the importance of multidisciplinary teamwork and the role of specialist clinics in the assessment and management of patients with leg ulcers
- ▶▶ Critique the impact of psychosocial issues on managing patients with leg ulceration and suggest strategies to incorporate these within clinical practice
- ▶▶ Appraise the impact of local and national guidelines on service delivery.

Outline of module content

The contents of the module are as follows:

- ▶▶ Section 1: Principles of leg ulcer assessment
- ▶▶ Section 2: Principles of leg ulcer management.

Foundation in pressure ulcer management

Module aims

The philosophy of the module is that pressure ulcers should be viewed as an adverse event and that risk assessment and management are integral to any treatment strategy.

The aim of the module is to enable nurses to analyse current theories and practice in relation to patients with, or at risk of, pressure ulceration. Education in the management and prevention of pressure ulcers will enhance the student's ability to contribute to high-quality multidisciplinary care. Pathophysiology, clinical-effectiveness, audit and their legal and professional accountability are also emphasised.

Module objectives

After completing this module, students should be able to:

- ▶▶ Compare and contrast the different causes of pressure ulceration and their associated pathophysiology
- ▶▶ Determine the benefits that a risk management framework offers to the prevention, management and audit of pressure ulcers
- ▶▶ Explore the importance of

multidisciplinary teamwork, patient partnership and communication to service delivery, within the context of the national guidelines from the RCN, EPUAP and NICE

- ▶▶ Identify and analyse the scientific evidence for the prevention and management of pressure ulcers
- ▶▶ Examine pressure ulcer classification, wound assessment and infection control in relation to the management of pressure ulcers
- ▶▶ Examine the evidence for repositioning and pressure-relieving equipment and adjunctive therapies in the prevention and management of pressure ulcers.

Outline of module content

The contents of the module are as follows:

- ▶▶ Section 1: What are pressure ulcers?
- ▶▶ Section 2: Risk management
- ▶▶ Section 3: Quality issues including a comprehensive list of key factors related to the prevention of pressure ulcers
- ▶▶ Section 4: Pressure ulcer assessment and management
- ▶▶ Section 5: Reducing and relieving pressure.

Module assessment methods

All modules require two pieces of coursework — a written assignment of 3,000 words, which can be either a literature review or in-depth case study, and a 1,500 word reflective essay, which examines one or more of the activities involved in the module. Both parts of the coursework must be passed in order to gain a credit for each module.

Written coursework is submitted online via the student's homepage — results are confirmed by the team via the 'Track assignments' area of the website. Students are subsequently able to track their assignments as they progress through the system. All summative assignments are marked by an ID number which has no reference to the student's name.

Quality assurance

All summative coursework is double marked by the team and a sample of work is moderated by an external examiner. Assignments are marked out of 25 (reflective essays) and 75 (literature

reviews/case studies), and the pass mark for each assignment has to be 50% or more. A student who submits a project for which a mark of less than 50% is awarded may re-submit on one further occasion. Re-submitted assignments will receive a maximum mark of 50%.

Future developments

The team aim to develop the modules in the following ways:

- ▶ Broaden the scope of the current choice of modules to include complementary subject areas, i.e. a foundation in acute wound healing
- ▶ Work towards aligning the current module structure to the NHS Knowledge and Skills Framework (Department of Health, 2004), to enable students to develop portfolios that can aid their career progression
- ▶ Set in motion a process whereby students can undertake the module of their choice with the option of opting out of the two assessed pieces of coursework. At the end of the module, students would receive an

attendance certificate. The module fees would be adjusted accordingly.

Conclusion

These modules have been implemented to complement Cardiff University's Department of Wound Healing's well-established Masters programme. The aim of the modules is to provide high quality, innovative education by offering a structured approach to study within the speciality of wound healing.

In addition, the use of a virtual learning environment will hopefully develop the students' technology skills — skills that are easily transferred to everyday modern life.

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Reference

Department of Health (2004) *Agenda for Change*. Department of Health, London

Key Points

- ▶ The Level 3 wound healing foundation modules from Cardiff University offer practitioners an opportunity to pursue a particular area of interest rather than simply pursuing a qualification.
- ▶ The flexible, self-directed distance learning model encompasses a practical and problem-solving approach to learning.
- ▶ The modules have been implemented to complement the departments well-established Masters programme.
- ▶ The use of a virtual learning environment can assist in the further development of technology skills which are easily transferred to everyday modern life.

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