



THAMES VALLEY
UNIVERSITY

Faculty of Health and Human Sciences
Institute for Research in Health and Human Sciences

Research Centre Annual Report

Academic Year 2004/2005

Centre: **Richard Wells Research Centre**

Centre Director: **Professor Robert J. Pratt** CBE FRCN

31 October 2005

Highlights

- Commissioned by the National Health Service University (NHSU) to develop a national infection prevention and control blended e-learning educational programme for all 1.3 million employees of the National Health Service (NHS);
- Contracted by the Department of Health (DH) to update and adapt the 'Cleanliness Champions' educational programme developed by NHS Education for Scotland for use in England;
- CHART, a national two year clinical trial commenced involving 24 NHS hospitals in England, funded by the DH to identify how to most effectively use MRSA surveillance data and structured diagnostic tools to reduce the incidence of hospital infections completes its first year;
- Conducted seminal systematic review on behalf of the DH on interventions to prevent the transmission of endemic meticillin resistant *Staphylococcus aureus* (MRSA) in acute care settings;
- DH Contract awarded to update the **epic** national evidence-based guidelines for preventing healthcare-associated infections (HCAI);
- Collaborating with the Infection Control Nurses Association (ICNA), the Hospital Infection Society (HIS), and the British Society for Antimicrobial Chemotherapy (BSAC) to establish a TVU-led HCAI prevention and control research consortium;
- Preliminary agreement reached with the DH for developing a facility for continuous HCAI evidence reviews and technical briefings for Department staff;
- Centre begins negotiations to assume responsibility for the management of the DH HCAI research programme;
- Collaboration with the London-wide 'Living Well' Programme (Expert Patient Initiative) for people living with HIV/AIDS continued;
- Educational and Staff Mentorship activities expanded;
- PhD students increasing
- Publication record in quality peer-reviewed journals continues to improve. (Appendix 1)

Abbreviations used in this Report:

BSAC	British Society for Antimicrobial Chemotherapy
DH	Department of Health (England)
HCAI	Healthcare-associated Infections
HEFCE	Higher Education Funding Council (England)
HIS	Hospital Infection Society
HPA	Health Protection Agency
ICNA	Infection Control Nurses Association
NHS	National Health Service
NHSU	National Health Service University
NICE	National Institute for Health and Clinical Excellence
NPSA	National Patient Safety Agency
MRSA	meticillin-resistant <i>Staphylococcus aureus</i>
RAE	Research Assessment Exercise
RWR	Richard Wells Research Centre

Introduction

Our Centre was established in 1995 to develop research and educational initiatives within the field of caring for patients with HIV disease. Over time, our remit broadened to incorporate the prevention and care issues associated with infectious diseases in general and HCAI in particular. As the only research centre of this type in the Higher Education sector, we collaborate closely with the DH, the National Institute for Health and Clinical Excellence (NICE), the NHS Modernisation Agency, the Health Protection Agency (HPA) and a variety of relevant organisations and learned societies to establish the evidence-base for preventing and controlling HCAI in acute, primary and community care environments.

Centre Staff

The following were the permanent staff of our Centre during the 2004/5 academic year:

Robert Pratt	Professor of Nursing	Research/Education *
Carol Pellowe	Principal Lecturer	Research/Education +
Heather Loveday	Principal Lecturer	Research/Education
Peter Harper	Senior Lecturer	Research/Education
Caroline Smales	Senior Lecturer	Education
Simon Jones	Lecturer	Research/Education
Jennie Wilson	Visiting Research Fellow	Research [‡]
Meg Morse	Senior Administrator	Centre Administration

* Centre Director
 + Deputy Centre Director
 ‡ Health Protection Agency

Centre Mission

- We value excellence in education and research as tools to enhance public health, to facilitate the continuing development of quality evidence-based healthcare and to promote social justice and equality.
- We are committed to pursuing new knowledge and developing creative educational initiatives focused on enhancing patient safety by further developing the evidence base for the prevention and control of infection and the care of patients with communicable diseases.
- In pursuit of our vision we will establish mutually supportive local, national and international multi-professional collaborative research and teaching networks with a variety of agencies, institutions, professional organisations and healthcare providers.
- We will foster and sustain a productive, high energy, team-oriented work environment that provides opportunities for all members of our Centre to

make significant academic and professional contributions and to achieve personal satisfaction, growth and fulfilment.

- Through our academic endeavours, we will make a positive and significant impact on our university, community and professions.

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Centre Objectives 2004-2005

External

- Develop and formalise an ongoing TVU-led multiprofessional, multi-agency research consortium to respond quickly to invitations to bid for government research grants. The initial core members of the consortium would consist of the principal stakeholders in this field, e.g., ICNA, HIS and BSAC. Experience has shown that proposals submitted from this type of collaboration have immense power in influencing the award of contracts.
- Establish facility to manage the national HCAI Research Programme on behalf of the DH.
- Develop a national blended e-learning programme for the NHS on behalf of the NHSU.
- Secure additional and significant contracts for research, systematic reviews and health technology assessments from the DH and other government agencies, e.g., National Patient Safety Agency (NPSA), NICE, and the NHS.

Internal

- Lead the development, validation and delivery of two M-level modules in Health Protection and Patient Safety (includes infection prevention and control) as options for the Faculty's new Master of Science programmes.
- Significantly contribute to the development of the Faculty and University research infrastructure by influencing research policy, strategy and governance through active participation in research committee activities, including ethical peer review and preparations for the 2008 Research Assessment Exercise.
- Lead the development, implementation and monitoring of quality staff development initiatives described in the Faculty's Pro-Vice Chancellor's HEFCE funded proposals for increasing research capability. This includes creating enhanced opportunities for staff development through organised programmes of research mentorship, internships and supervision and support to staff to develop the evidence-base of their teaching.

Personal

- Publish two RAE-quality academic papers in appropriate peer-reviewed journals.
- Contribute presentations to an active national and international conference schedule.
- Significantly contribute to the teaching of specialist subjects throughout the range of programmes delivered within the Faculty.

The following report describes the extent to which we have met our objectives. We will continue to pursue these objectives during the next academic year.

Report: Centre Activities

The epic initiative - introduction

The **epic** initiative is a series of long-term government commissioned research projects focused on contributing to the development of the evidence base that underpins infection prevention and control practice in the NHS. Funded principally by the DH, all phases of **epic** involve extensive collaboration with key stakeholders in this field, especially the ICNA, the HIS, and the HPA. This initiative has so far generated over 1.5 million Pounds of research funding and new phases continue to be developed. More than any other project, the epic initiative established both our credentials in the field of infection prevention and control and our expertise in conducting complex systematic reviews.

The phases of epic

- **epic phase 1 – Developing national evidence-based guidelines for preventing healthcare-associated infections in NHS Hospitals**

[Principal Investigator: Robert Pratt]

Following two years of conducting multiple systematic reviews and the critical appraisal of large volumes of evidence, the phase 1 national guidelines for preventing hospital-acquired infections in England and Wales were developed, approved and published in *The Journal of Hospital Infection* in January 2001.¹ During this academic year, we completed the systematic reviews to update the evidence base for these guidelines (see **epic phase 1b**).² Last year, we developed complementary evidence-based guidelines for preventing HCAI in primary and community care on behalf of NICE.³

- **epic phase 1a – Supporting NHS Trusts to implement national guidance for preventing healthcare-associated infections**

[Education Lead: Heather Loveday]

For the last two years the DH funded a collaboration between the Richard Wells Research Centre (RWR) at Thames Valley University and the National Clinical Governance Support Team (part of the NHS Modernisation Agency) to develop a Clinical Governance Development Programme focused on preventing HCAI. This programme is intended to support multidisciplinary healthcare teams in NHS Trusts throughout England to improve infection prevention and control services, improve practice and reduce the rates of preventable HAI. The first programme completed in January 2004 and a second course completed in January 2005.

The programme was lead jointly by Dr. Rosemary Gillespie, Associate Director of Education for the Development Programme in the Clinical Governance Support Team, and Heather Loveday, RWR Principal Lecturer. Jennie Wilson, Senior Nurse Manager and Surveillance Coordinator at the Nosocomial Infection National Surveillance Unit in the Health Protection Agency, and now visiting research fellow to the Centre, acted as the Programme Specialist Advisor.

- **epic phase 1b – Updating the evidence-base for the Phase 1 Guidelines**

[Principal Investigator: Carol Pellowe]

As part of our contractual obligations to the DH, we completed the updating of the evidence base for the phase 1 guidelines and published our findings in November 2004.² In June 2005, the DH contracted us to update the epic phase 1 guidelines and, following an additional systemic review of the evidence, the new guidelines will be published simultaneously in the *Journal of Hospital Infection* and the *British Journal of Infection Control* in March 2006.

- **epic phase 3 – Enhancing the Evidence-base for Infection Prevention and Control Practices in the United Kingdom (CHART)**

[Lead Investigators: Peter Harper and Evonne Curran]

In February 2003 we commenced the initial planning stage of a two year national clinical trial to ascertain if MRSA colonisation/infection could be reduced by using Statistical Process Control (SPC) feedback and a structured diagnosis of the underlying causes of MRSA acquisition. This study, funded by the DH, is being conducted in partnership with the ICNA and 24 NHS Trusts throughout England. This trial commenced in April 2004 and monthly data is being collected and reported. Principal investigators reported the progress of the study in June 2005 at the DH Antimicrobial Resistance Research Programme Conference.

- **epic update – Monitoring the changing evidence for the prevention of HCAI**

[Principal Investigator: Carol Pellowe]

During this academic year, we negotiated a contract with DH to conducting ongoing systematic reviews to identify changes in evidence, emerging technology and other national and international evidence and guidelines for preventing HCAI and to prepare briefs for and respond to departmental and ministerial enquires. For example, we are currently contracted to conduct evidence reviews to inform NHS Trust staff uniform policies and laundering, i.e., the role of uniforms in transmitting infection.

- **epic MRSA evidence review - Systematic review of interventions to prevent the transmission of meticillin-resistant *Staphylococcus aureus* (MRSA) in hospitals**

[Principal Investigator: Heather Loveday]

This systematic review, commissioned by DH on behalf of the Joint MRSA Working Party, was undertaken to inform the development of the new national guidelines for preventing MRSA transmission in hospitals. The full review will be published in the *Journal of Antimicrobial Chemotherapy* in early 2006. ⁴

Additional Activities

- **National Healthcare-associated Infection Research Network**

[Principal Investigators: Robert Pratt, Heather Loveday]

During this year, we have entered into contract negotiations to assume responsibility for the management of the national HCAI Research Programme on behalf of the DH. Subject to contract agreement, we anticipate establishing this facility at TVU in December 2005. This is a major development for the Centre. [Note: Contract Awarded October 2005]

- **National Health Service University (NHSU) 2004-2005 onwards**

[Project Director: Robert Pratt, Project Manager Carol Pellowe]

In collaboration with the Faculty's Distance Learning Unit and Intuition Publishing Ltd. (Dublin), we have developed a blended e-learning infection prevention and control programme for the NHS. ⁵ This initiative has been funded by the NHSU/DH and is now being transferred to the South Yorkshire Strategic Health Authorities, who will host the NHS core e-learning programmes. The programme is a major development for our Centre as it is intended that this multidisciplinary programme will be mandatory for all 1.3 million clinical and non-clinical employees of the NHS. Following the pilot, additional contracts for modification and updating are anticipated and we intend to secure funding for impact evaluation in 12 months time.

- **NHS Education for Scotland (NHSE Scotland) Cleanliness Champions**

[Education Lead; Heather Loveday]

Under contract to the DH (England), we are adapting and customising an e-learning infection prevention and control programme developed by NHSE Scotland for use by the NHS in England.

- **Living Well with HIV/AIDS – Expert Patient Initiative**

[Project Manager; Simon Jones]

Having originally developed the evaluation tools and strategy for this pan-London DH Expert Patient Initiative, we are under contract to conduct an annual evaluation of this programme in NHS Trusts and corresponding local government authorities in east and west London sectors. Evaluation analyses have been presented at several international conferences.⁶

- **National Institute for African Studies (NIAS)**

During this academic year, in partnership with the National Institute for African Studies in Slough, we continued to teach on the a part-time course for African Community Leaders in Berkshire, focused on developing their knowledge and skills in order to support Africans resident in the UK who are affected by HIV/AIDS. This course, known as *Engaging AIDS*, is validated by TVU and delivered at TVU Ealing. It was well evaluated and is continuing in the next academic year.

- **Infection Control Nurses Association of the British Isles**

The Centre has established formal collaborative links with the Infection ICNA. Professor Robert Pratt is the Association's President, Heather Loveday is the ICNA Educational and Research Adviser. This collaboration is designed to jointly develop research, education and guideline development projects. CHART (described above) is a product of this partnership. During this academic year, Heather Loveday has led the development of the Association's Research Strategy which was scheduled for publication in the September 2005 issue of the Association's professional journal.

Research Students & Faculty Staff Mentorship

This year has seen a significant increase in the number of PhD students enrolling with the centre.

PhD Students

Eilidh Macrae. *Approaches to interpreting antiretroviral resistance, their relative effectiveness and use in the clinical management of people living with HIV.*

[Supervisors: Carol Pellowe, Robert Pratt, Clive Loveday, Sibel Roller,]

Akwasi Badu Appiah	HIV/AIDS Community Leadership	Enrolled, commencing research training
Jennie Wilson	Nosocomial infection surveillance	Enrolled 2004
Simon Jones	to be confirmed	Enrolling 2005/6
Heather Loveday	to be confirmed	Enrolling 2005/6

Our Teaching Contribution to our Faculty

All teaching staff allocated 110 hours each to support Faculty teaching programmes and taught specialist subjects, e.g., infectious diseases, medical sciences, infection prevention and control, and research methods, in a range of certificate, diploma, degree and post-graduate level courses.

In addition, for a second year, the Centre took academic leadership of the quantitative research methods module in the MSc in Research Methods programme.

In addition this year, as our contribution to the Faculty's Research Capability and Capacity programme, the Centre has developed and implemented an in-service programme designed to facilitate staff to develop more effective evidence-based teaching strategies.

The Centre's plans for validating public health modules for the Masters in Health and Social Care were not possible due to the cancellation of this programme. The intention is now to develop a Masters programme in health protection and patient safety during the next academic year. We anticipate offering this course in February 2007.

- **Certificates in Personal and Professional Development (CPPD)**

[Educational Lead: Caroline Smales]

The Centre continues to be responsible for the ongoing development and delivery of all Faculty CPPD programmes focused on:

- Tuberculosis: Healthcare Management
- Infection Control: Principles and Practices
- Management and Care of People with Infectious Diseases

- **Contributions to University and Faculty Committees**

All academic members of the Centre are allocated 110 hours each per academic year to provide research mentorship to Faculty staff.

Members of the Centre are involved in appropriate research committees, including the University Research Committee, Faculty Research Committee (FRC), University and Faculty Research Assessment Exercise (RAE) sub-committees, Faculty Research Ethics Committee, Faculty Research Institute Advisory Committee, and the Academic Planning Committee.

Prof. Robert Pratt is Chair of the FRC, the Faculty RAE sub-committee, the University website review sub-committee. Dr. Carol Pellowe is the Deputy Director designate for the Joanna Briggs Institute initiative. Heather Loveday is the Chairperson of the Faculty Research Ethics Committee.

Supporting Our Learning Communities

All Centre research and teaching staff are attached to a Learning Community where they contribute to its strategic development and facilitate collaborative practice-led research and scholarly activity.

Below is an example of service-initiated collaborative research that Centre staff are supporting.

- **HARP – Healthcare Assistant Research Project**

[Principal Investigator: Simon Jones]

In collaboration with The Lister Hospital in the Chelsea and Hammersmith Learning Community, we evaluated the impact of introducing healthcare assistants into their nursing service. This project was delivered in November 2004.

Key Areas of Continuing Professional Development for Centre Staff

All Centre colleagues agree their individual staff development programme at their annual performance review. Conference activity remains an important staff development mechanism and this year colleagues have attended and presented papers at several conferences relevant to our research programmes, e.g., guideline development, infection control and prevention, and infectious diseases (Appendix 1).

- Dr. Carol Pellowe was awarded her doctorate in Education in November 2004.
- Peter Harper was granted extended study leave in September 2004 in order to further his doctoral studies in 2005.
- Simon Jones was awarded his Post-graduate Diploma in Research Methods in November 2004 and is now in the process of completing his dissertation in order to complete his MSc. He also attended a short course on Systematic Reviews at the University of Oxford and joined the Higher Education Academy.

Membership of Advisory Groups

The profile of the Centre has continued to be raised by the work of individual Centre staff working as advisors and members of government committees, professional organisations, expert reference groups, local government and health authorities and as external examiners to other Universities. Centre staff formally advise or support the following:

- Department of Health, Chief Medical Officer's Expert Advisory Group on AIDS (EAGA) **Robert Pratt**
- National Patients Safety Agency. Reference Group for the Hand Hygiene Project **Heather Loveday**

- Health Protection Agency (Advisory Group to Lead Nurse) **Heather Loveday**
- Manchester University (Mildmay International)
Carol Pellowe (External Examiner)
- North East Wales Institute of Higher Education
Carol Pellowe (External Examiner)
- National HIV Nurses Association
Robert Pratt (Patron); Heather Loveday (Research Awards Adviser) Carol Pellowe (Boehringer Ingelheim Award Adviser)
- Infection Control Nurses Association of the British Isles
Robert Pratt (President until September 2005); Heather Loveday (Research and Educational Adviser)
- The following London Primary Care Trusts: Ealing, Hammersmith & Fulham, Hounslow, Hillingdon, Brent & Harrow, Westminster, Redbridge and Waltham Forest. (Living Well Programme)
Simon Jones (Project Manager)

Income Generation

A separate report with a restricted distribution details all income generated during this academic year and is available from the Faculty Finance Officer. The total amount of income generated exceeded half a million Pounds and the Centre exceeded its agreed income generation target for this academic year.

Our Publication Record

All research active Centre staff published in peer review journals and the total volume and quality of publications was excellent (Appendix 2).

END



ROBERT J PRATT CBE FRCN
Professor of Nursing
Centre Director

31 October 2005 CP/RJP/

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4. Loveday HP, Pellowe CM, Jones SRLJ and Pratt RJ. A systematic review of the evidence for interventions for the prevention and control of meticillin-resistant *Staphylococcus aureus* (1996-2004). *Journal of Antimicrobial Chemotherapy* 2006; *in press*.
5. Pratt RJ, Pellowe CM, Shelley J, Adams J, Loveday HP, King D, Jones SRLJ. Using a blended e-learning model to provide accessible infection prevention and control training for NHS staff: The NHSU/TVU/Intuition approach. *British Journal of Infection Control* 2005;**6**(2):16-18.
6. Jones S, Miller J, Ojwang T, Tan H, Pratt R. An Evaluation of the West London Living Well Programme. (Poster). In: Programme and abstracts of the 15th International AIDS Conference, July 11-16, 2004; Bangkok, Thailand.

Appendix 1: Our Conference Activities 2004-05

We presented the following papers at regional, national and international conferences during this academic year:

- Pellowe C. Prevention of healthcare associated infections in primary and community care. Nursing in Practice Conference, British Design Centre, London, 8-9 September 2004.
- Pratt RJ. HIV Disease and Children. International Infection Control Nurses Association Conference, 13-16 September 2004, Belfast.
- Pellowe C. Infection Control Spreading the Word. National Study Day, 26 May 2005, PHLS.
- Pellowe C. Guideline development and application to practice. ICNA Regional Study Day, 17 May 2005, Dudley.
- Pratt RJ. Haematological Manifestations of HIV Disease. Haematology Nurses International Conference 13 June, London.

Appendix 2: Our publications during 2004-05

- Pellowe C. Research Review, Respiratory Care. *Nursing Times* 2005;**101**(42):51.
- Loveday HP, Prieto J, Case M, Curran E, Hodgson G, Hughes J, Hughes F, Portsmouth J, Madeo M, Odum J, Williams D. Infection Control Nurses Association Research and Development Group: research strategy for 2005 to 2010. *British Journal of Infection Control* 2005;**6**(4):10-12.
- Pratt RJ. Preventing Healthcare-associated Infections – an essential component of patient safety. National Patient Safety Agency and British Medical Journal Publishing in liaison with the Institute of Healthcare Improvement in Boston. Online publication, September 2005;
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- Pratt RJ. Infection Awareness in the NHS: winners and losers. *European Hospital Decisions* 2004;**4**:90-91.
- Pratt RJ. Changing our spots (editorial). *British Journal of Infection Control* 2004;**5**(2):5.
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- Jones S. The 3rd London Science Fiction and Fantasy Film Festival. Online *Kamera* publication: http://www.kamera.co.uk/features/the_3rd_london_science_fiction_and_fantasy_film_festival.php, 2004.
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- Pellowe CM, Macqueen S, Coe L. Using evidence-based infection control guidelines to prevent healthcare associated infections in the neonatal unit. *Journal of Neonatal Nursing*.2004;**10**(5):6-10.
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