

The Development of Postgraduate Anaesthesia and Intensive Care Training at The University of the West Indies

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“A people without the knowledge of their past history, origin and culture is like a tree without roots.” Marcus Garvey

ABSTRACT

The one-year Diploma in Anaesthetics (DA) was the first postgraduate programme offered by the then Faculty of Medicine of The University of the West Indies (UWI). It was instituted in 1966, when the need for trained physician anaesthetists became paramount. Over 200 physicians have been awarded the DA which was discontinued in 1994. The four-year Doctor of Medicine in Anaesthetics [DM (Anaesthetics)] was commenced in 1974 and continues to train most of the region's physician anaesthetists. The majority of the 119 graduates (as of December 2011) are providing invaluable services to the people of the Caribbean. The time has come for the establishment of a regional certifying body, the Caribbean College of Anaesthetists. This college would determine the standards for the training and clinical practice of anaesthetists as perioperative physicians including: the conduct of anaesthesia, critical care, acute and chronic pain management. It would also facilitate continuing medical education and recertification of all practising anaesthetists within the region.

Keywords: Anaesthesia and intensive care training, Caribbean, graduates contribution to the region, post basic ICU nursing training

Desarrollo de la Anestesia de Postgrado y Entrenamiento en Cuidados Intensivos en la Universidad de West Indies

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“Un pueblo sin el conocimiento de su historia pasada, su origen y cultura, es como un árbol sin raíces.” Marcus Garvey

RESUMEN

El Diploma en Anestesia (DA) de un año fue el primer programa de postgrado ofrecido por la entonces Facultad de Medicina de la Universidad de West Indies. Este diplomado se instituyó en 1966, cuando se hizo patente la necesidad de médicos anestesiólogos entrenados. Más de 200 médicos han recibido el DA, que fue discontinuado en 1994. El programa de Doctor Especialista en Anestesia, comenzó en 1974 y continúa entrenando a la mayoría de anestesiólogos de la región. La mayor parte de los 119 graduados (a partir de diciembre 2011) están proporcionando servicios inestimables a las personas del Caribe. Ya es hora de establecer un organismo de certificación – el Colegio de Anestesiólogos del Caribe. Dicho colegio determinaría las normas para el entrenamiento y la práctica clínica de los anestesiólogos como médicos perioperatorios, incluyendo la conducción de la anestesia, el cuidado crítico, y el tratamiento del dolor crónico y agudo. También facilitaría la continuación de la educación médica y la recertificación de todos los anestesiólogos practicantes de la región.

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Palabras claves: entrenamiento en anestesia y cuidados intensivos, Caribe, contribución de los graduados a la región, entrenamiento post-básico de enfermería de Unidad de Cuidados Intensivos

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INTRODUCTION

Training in anaesthesia at The University of the West Indies (UWI) arose out of the need for trained physicians to offer improved quality anaesthetic services. In the 1930s, anaesthesia was provided by untrained physicians, nurses and pharmacists, with surgeon supervisors. There was high anaesthetic morbidity and mortality (1, 2). This led to the selection of physicians for formal postgraduate training in anaesthesia in the United Kingdom (UK) in 1936 (2, 3). Prior to the opening of the University College (UC), all under- and post-graduate degrees in medicine were obtained overseas, mainly in the UK and to a lesser extent in the United States of America (USA).

The “Birth” of the University College (UC) and Development of Anaesthetic Training and Services

The UC of the University of London was opened at the Mona Campus in Kingston, Jamaica in 1948. (2, 4–6). The University College Hospital (UCH) had a vacant post for a specialist anaesthetist to organize anaesthetic services, teaching and training of medical students and physicians. Dr Victor Keating, an Irish officer in the Royal British Air Force Corps, was recruited in 1951 as the first Head of Anaesthetics (1, 2). He received much assistance from Drs Freeman and Verley, the specialist anaesthetists at the Kingston Public Hospital (KPH) and the Victoria Jubilee Hospital (VJH). They had been responsible for the clinical anaesthesia experiences and teaching of the first 33 medical students, because of the delayed opening of the UCH to 1952, due in part to hurricane Charlie in 1951 (2). Dr Ivor Campbell, a Jamaican who received undergraduate and postgraduate training in the UK, and the second appointed specialist anaesthetist (1957), was seconded from the government service to assist Dr Keating (1, 2, 7). They were both involved in research which focussed on determining a better way (arterial or venous) to transfuse patients during resuscitation. Keating also authored the book, ‘Anaesthetic Accidents: The Complications of General and Regional Anaesthesia’ (1st edition) in 1956 (1, 8).

Physician Anaesthetic Training

In 1958, having decided to proceed with postgraduate training locally, Drs Keating and Campbell established a liaison with Professor JP Payne at the Hammersmith Hospital. Professor Payne visited the Department in 1962 and later that year, recognition for postgraduate training was granted by the Faculty of Anaesthesia of the Royal College of Surgeons (FARCS). By this time, the UC had been granted full university status (April 1962), could award its own degrees and

was renamed The University of the West Indies (4, 5). During the next two years, under the leadership of Ronnie Browne (the third Head of Anaesthetics), further preparations for the one-year DA programme were made. Assistance was obtained from Professor Cecil Gray, then Dean of the FARCS (3). The objectives were to train physician anaesthetists in the safe administration of anaesthesia and to supervise nurse anaesthetists (9).

The DA began in 1966, by John Sandison (fourth Head of Anaesthetics, 1963–1972) and Professor Gray was invited as the first External Examiner. It ran for several years as the only UWI postgraduate qualification available for training of physician anaesthetists. The success of this first postgraduate diploma, laid the foundation for other postgraduate diplomas and the more advanced four-year Doctor of Medicine (DM) specialist degrees. Dr Sandison considered the more advanced degree, DM (Anaesthetics), but the facilities and staff were deemed inadequate for that level of training. He established a recovery room, began a rudimentary intensive care unit (ICU) and laid plans for the building of a fully equipped ICU. His persistent lobbying led to the Department of Anaesthetics achieving autonomy within the hospital in 1965 and within the University in 1968, when he was granted a personal chair.

The formal establishment of a chair in Anaesthetics by the University in 1972 attracted Professor John Homi to become the sixth head of Anaesthetics – 1972–79 and 1981–1991. He continued the plans laid by Sandison for the establishment of the four-year DM Anaesthetics programme and the building of the ICU (opened in 1975) to facilitate the training of residents in advanced anaesthesia techniques and intensive care medicine. Residents were therefore no longer compelled to go overseas to complete their training. The DM Anaesthetics also facilitated the growth of local specialist surgical services such as open heart surgery and neurosurgery which were heavily dependent on intensive care services. The programme was first established at the Mona campus in 1974 and served the entire English-speaking Caribbean (10). Through his links with the Royal College of Anaesthetists in the United Kingdom, and North Western University, in Chicago, Professor Homi was able to boost the local faculty and provide opportunities for residents to receive additional training through overseas electives.

Under his leadership, the postgraduate (Anaesthetics) programmes were extended to the other UWI campuses – St Augustine in Trinidad and Tobago and Cave Hill in Barbados. Drs Phyllis Pitt-Miller in Trinidad and Tobago and Harley Moseley in Barbados (now retired Professors), simultaneously instituted the DA in 1976 and the DM in 1984

(10, 11). Over 200 physicians were awarded the DA before it was discontinued by the University in 1994, as the DM met the mandate of training independently practising specialists.

Contributions of DA and DM Awardees to the Specialty

The majority of the 119 recipients of the DM (as of December 2011) have remained in the Caribbean and are providing invaluable anaesthesia services. Several are involved in teaching at undergraduate and postgraduate levels and training future trainers.

Dr Laughton Richardson, a Kittician (from St Kitts and Nevis), was one of the first to obtain the DA (1967). On his return to Jamaica having obtained the FFARCS, he was appointed a lecturer and subsequently became the fifth Head of Anaesthetics. Subramanian Sivapragasam (Professor Siva, born in Sri Lanka), obtained the DA in 1968, and then the FFARCS. He was involved in the first open heart surgery (12) and single-handedly ran the cardiothoracic anaesthesia service for 26 years (12). Three DM graduates (Drs Clarence McGaw, Marinna Scarlett and Kelvin Ehihametalor) have maintained that service at the University Hospital of the West Indies (UHWI) since Professor Sivapragasam's retirement in 1994.

Dr Wadia Hanna, who obtained the DA in 1972, the FFARCS (Ireland) in 1975 and the DM (Anaesthetics) in 1976, took over headship when Professor Homi retired in 1992. He was the first DM graduate to head the Department of Anaesthetics. He had a strong interest in aero-transport of patients and advanced training of paramedical personnel. He developed a modified version of the British curriculum for the DA and the DM programmes in 1977, and pioneered the use of computers in the Department. He authored several papers, including the documentation of the first recorded use of ether (the first inhalational anaesthetic agent) in 1847 in Jamaica (13), and the teaching of anaesthesia in the undergraduate curriculum (14). In 1998, Dr Maria Nelson, a DA recipient and a FFARCS (Ireland) graduate, assumed the headship of the Department. During her tenure, the University amalgamated several departments to reduce administrative costs. As a result, the Department of Anaesthetics lost its independence and became a Section in the Department of Surgery, Radiology, Anaesthesia and Intensive Care. She continued the struggle for the appropriate amount of anaesthetic staff, equipment and drugs, especially when the second eight-bed-ICU was being built.

Dr Hyacinth Harding-Goldson, another DM graduate, assumed the headship of the Section of Anaesthesia and Intensive Care in 2005. She successfully lobbied the University to recognize the intensive care component of the DM training programme, which became the DM (Anaesthesia and Intensive Care) in 2007. She led the revision of the curriculum and together with the Anaesthetic Heads at the Cave Hill and St Augustine campuses, introduced a modular curriculum in 2008 and reduced the DM examinations to two parts in keeping with the recommendation of the Faculty of

Medical Sciences. She lobbied for the renaming of the ICUs to the John Homi ICU-A and B in 2011, in recognition of his contribution to the development of anaesthesia services and training in the Caribbean.

Professor Moseley attained the Chair in Anaesthesia in 2005, and though not a DM recipient, oversaw the DM programme at the Cave Hill campus from its inception until December 2007 when he retired. The five DM graduates during his headship have subsequently taken up various consultant posts which have allowed subspecialization and continuation of the programme. There have been four other graduates under the leadership of Dr Yasodananda Areti, the current head. Dr Deryk Chen, a DA and FFARCS graduate, acted as Head of Anaesthesia and Intensive Care Unit at the Eric Williams Medical Sciences Complex, Mount Hope, Trinidad and Tobago from 2000 when Professor Pitt-Miller became the Dean of the Faculty of Medical Sciences, St Augustine Campus. He officially assumed the post as Head in 2009. Twenty-five Trinidadian doctors have completed the DM programme. These graduates have enabled the offering of various specialized anaesthesia services particularly for cardiothoracic and neurosurgery.

Several selected Government hospitals in Jamaica, Barbados, Bahamas and Trinidad and Tobago have been accredited for rotation of trainees. Training has only been offered at Mona, St Augustine and Cave Hill. These three campuses have maintained cross-campus curriculum harmony, conduct specialized anaesthesia workshops and conferences in collaboration with prestigious international universities to enhance residents' training, provide continuing medical education of anaesthetists in the Caribbean and exposure to advanced technologies and techniques not readily available locally.

Nurse Anaesthetists Training

Although trained physicians became available in Jamaica in the 1940s, they were too few to provide adequate service for the entire island. The persistent untenable situation of anaesthetized patients being attended to by untrained anaesthesia personnel (particularly nurses), especially in the rural hospitals, led Dr Leo Freeman to lobby for nurses to be formally trained (1, 2). Although there was opposition from physician anaesthetists, twelve nurses were sent for training to the USA, and several others received apprenticeship training locally and in Cuba (7, 9, 15).

An islandwide survey of "*Anaesthetic Personnel Practices and Facilities*" was undertaken by Professor Sandison and senior lecturer Michael Hedden in 1970, with assistance from local faculty (2, 7, 9, 15). It confirmed the anachronism in anaesthesia services, with nurses providing 87% of anaesthesia in the rural areas as compared to the physician-based services in the urban hospitals. This and other anaesthesia service-related matters were tabled at a conference in December of that year, and the opportunity was seized to convince the Minister of Health to institute formal

training and certification of nurse anaesthetists (15, 16). Professor Homi was an invited speaker. He returned in January 1971, as a volunteer member of the SS Hope which visited Jamaica at the request of the Government, to assist with the establishment of the Nurse Anaesthetist (NA) training programme (16, 17). During his headship, he continued his involvement with this programme which was delivered by the Jamaica School of Nurse Anaesthetists, established in 1981 at the Kingston Public Hospital.

Dr Hazel Chung-Knight was appointed the Medical Director, as recommended in '*A Plan for the Improvement of Anaesthesia Services in Jamaica*' (16) and remained so up to December 2011. Mrs (Nurse) Dorothy Denny had received training in the USA and was recruited as the Assistant Director, tutor and coordinator of the programme. She retired in 2004 and has had two successors since, Mrs Joyce Daley who retired in 2008 and currently Ms Sonia Barnaby. Dr Neville Ballin succeeded Dr Beverley Grant-Lewis in 2004 as the senior Government anaesthetist. It remains the only school in the Caribbean and continues to provide trained nurse anaesthetists for several of the English-speaking islands. Ninety-six nurses have graduated since its inception to April 2011, fifty-eight of whom have worked, or are presently working in Jamaica (personal communication with the director and course coordinator).

Intensive Care Nurses Training

The post-basic ICU nurses training began in 1969 (18, 19), with the mandate to provide specialist-trained nurses and to enhance all DM programmes. The 567 graduates (to October 2011) have worked or are currently working in various Caribbean islands. The KPH critical care nursing course was started in 2001 by the graduates of the UWI ICU course and has produced 150 graduates to February 2011 (personal communication with Lorna Thompson, the University Nurse Educator, Critical Care, and Minette Green, the immediate past Course Coordinator, KPH).

CONCLUSION

The development of the DM (Anaesthesia and Intensive Care), Nurse Anaesthesia and the ICU programmes has allowed sustained training and the provision of quality care to the people of the region. DM graduates practise as independent specialists and/or lecturers throughout the English-speaking Caribbean and internationally. Plans are afoot to institute subspecialty fellowship programmes in the Caribbean as the expertise is now available.

Further development will involve the establishment of a Caribbean Association of Anaesthetists and a Caribbean College of Anaesthesia, as a certifying professional body for

physician anaesthetists. Joint collaboration by UWI faculty members of the four campuses, and graduates across the Caribbean, augurs well for the continued development of the specialty.

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