

# Medical foundation training in Brunei Darussalam– the Postgraduate Year 1 and Year 2 Programme

Siti Nur Ashikin PENGIRAN TENGAH, Jackson Chee Seng TAN , Kim Khee TAN, Alice Moi Ling YONG , Elizabeth Siew Foon CHONG :

Medical Foundation Training Programme Advisory Committee,  
Medical Education Centre, RIPAS Hospital, Brunei Darussalam

## BACKGROUND

Postgraduate medical education has changed dramatically over the past 40 or so years since the first Bruneian doctors qualified. There is now greater emphasis on structure, attainment of competences and formative assessment within evidence-based systems with the goal of efficiently producing doctors of high quality. Traditionally, Houseman training (the pre-registration first year of being a doctor on graduation from medical school) for Bruneians was done in the country of training. Bruneian doctors have been extremely privileged to receive undergraduate medical training at highly reputable institutions in the United Kingdom (UK), the Republic of Ireland and more recently Canada, Australia and New Zealand. In addition, the Pengiran Anak Puteri Rashidah Sa'adatul Bolkihah (PAPRSB) Institute of Health Sciences (formerly the In-

stitute of Medicine, Universiti Brunei Darussalam launched an undergraduate programme in September 2000 whereby students can commence medical training in Brunei Darussalam and complete their training at selected partner universities in the countries mentioned above.

For Brunei Darussalam there are pros and cons for training (be it undergraduate or postgraduate) in foreign countries. Amongst the drawbacks are difficulties of securing a position when competing against local students/graduates, time and distance away from family and home, and a distancing from

**Correspondence author:** SNA PENGIRAN TENGAH  
Rehabilitation Unit, Department of Medicine  
RIPAS Hospital, Brunei Darussalam  
Tel: +6732242424 Ext 7552  
E mail: ctengah@googlemail.com

## Glossary

### Postgraduate Year 1 and Year 2 Programme

Foundation Programme (UK)

2-year Housemanship programme

### PY1: Postgraduate Year 1 trainee

Foundation Year 1 trainee/FY1 (UK)

Pre-registration House Officer

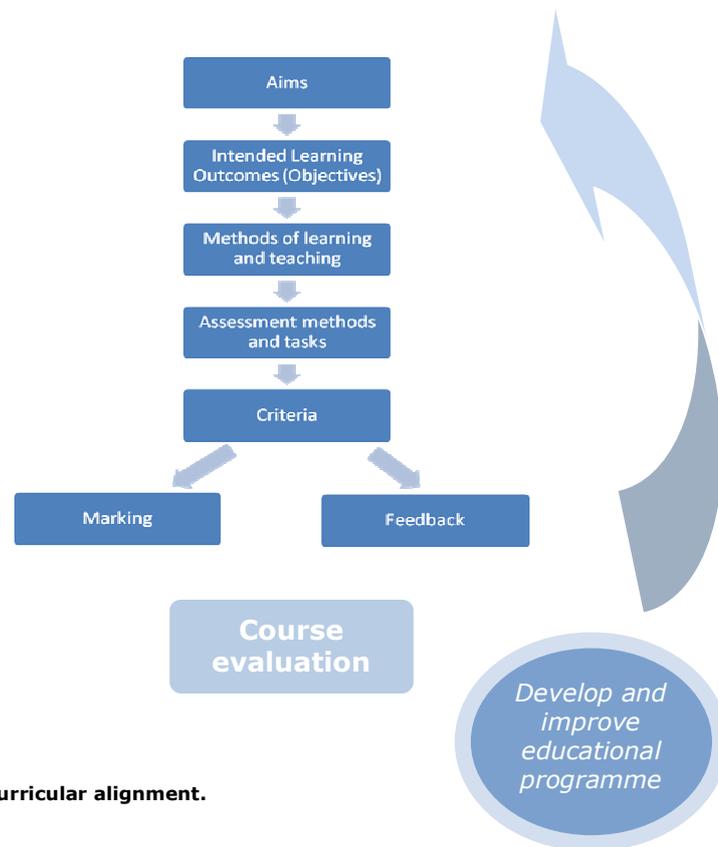
Junior House Officer

### PY2: Postgraduate Year 2 trainee

Foundation Year 2 trainee/FY2 (UK)

Senior House Officer Year 1 (former UK system)

Medical Officer Year 1 (former Brunei Darussalam system)



**Fig. 1 Educational model of curricular alignment.**

the culture and needs of the Bruneian population. However in favour of overseas training is guaranteed quality control in countries such as the UK and Canada where medical education is not only highly esteemed but also strictly regulated. It also confers a very useful perspective of medicine in the setting of a developed country. Capable candidates may also get opportunities to further their training in their chosen specialties.

Many doctors will remember the Houseman year vividly (if not necessarily fondly) as a time of new responsibility, a steep learning curve and a true initiation into the profession of medicine. This year is felt to be an extension of undergraduate medical training in that many Medical Schools take an active role in placement of students for the crucial Houseman posts. Mandatory assess-

ment takes place during this year ensuring the pre-registration doctor is deemed competent for full registration with an accrediting body such as the General Medical Council (UK), Singapore Medical Council and Australian Medical Council.

Modern medical education advocates the model of curricular alignment which should be applicable for all types of training. This model depicts components of an educational programme in a linear fashion from a starting point of aims through learning objectives through to assessment but with feedback ensuring a cycle of development and improvement (Figure 1). It is important that marking and feedback at the end impact back on the original aims and desired outcomes. Medical education literature seems to endorse the view that student learning is driven by

**Table 1: Mission and Vision of the PY1 and PY2 Programme.**

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<b>Vision</b>
To have a cadre of doctors able to deliver a high quality, reputable, sustainable health care system.
<b>Mission</b>
Instilling an ethos of patient-centred care
Encouraging self-directed learning in an appropriately supported environment
Developing a culture of professional behaviour within an accountable system

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assessment.<sup>1</sup> Furthermore assessment can evaluate a course or teaching method itself.

### CONCEPTION OF HOUSEMAN TRAINING IN BRUNEI DARUSSALAM

In 2008, the Ministry of Health (MOH) was faced with a situation where three Bruneian graduates (two from Canada and one from a twinning programme consisting of Ireland and Malaysia) were unavoidably without House jobs after they graduated from medical school. We anticipate that this situation is likely to recur in years to come, and indeed in 2009 six more Bruneian trainees were in the same position, five from Canada and one from Australia.

Full registration with an approved licensing authority such as the General Medical Council (UK) is a mandatory requirement for employment as a doctor with the MOH. Therefore it was necessary to establish a programme for pre-registration Houseman training to meet the needs of these individuals

that would enable them to achieve the competences required for full registration. A committee was formed consisting of individuals interested in postgraduate training with affiliation to the Postgraduate Advisory and Training Board (PGATB). The pre-registration House Officer year was named Postgraduate Year 1 (PY1) and consists of a compulsory six months each in General Medicine and General Surgery. Successful completion allows the trainee to be fully registered with the Brunei Medical Board and proceed to Postgraduate Year 2 (PY2). Doctors trained in systems with only one year Housemanship e.g. Australia and the Republic of Ireland but who have full registration will be required to enter the PY2 portion of the programme. The PY2 is a second core foundation year that consists of a combination of four months of either Accident and Emergency or General Practice (core) and four months Obstetrics and Gynaecology or Paediatrics (core) and four months of an elective (clinical only). It is hoped that the PY2 will help to develop a more holistic doctor,

**Table 2: Objectives for training in the PY1 and PY2 programme.**

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A transition from undergraduate study to the working environment
Developing into a safe practitioner with emphasis of skill on management of the acutely ill
Initiating a knowledge of clinical governance
Developing the skills to become a reflective learner

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**Table 3: Key elements in the PY1 and PY2 training programme.**

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The training programme consists of the following:
Syllabus for Postgraduate Year 1 and Year 2 Trainees
Supervised clinical practice
Education and training activities
Self appraisal and personal development
Reflective practice
Assessment (Structured meetings and formal assessments)

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introduce areas of current need and give enough time and exposure for trainees to decide on their future career. This article will focus on the experience of PY1 training, however key elements of PY2 training such as supervised training and workplace-based assessments are the same.

The system was adapted from the established foundation training programme of the United Kingdom as this is an educational system familiar to many Bruneian doctors. It is noteworthy that this programme is based on Good Medical Practice, the guidance on professional conduct of doctors in the United Kingdom, as well as Continuing Professional Development both published by the United Kingdom's General Medical Council (GMC).<sup>2,3</sup> Other documents studied included Principles of Good Medical Education and Standards of Training for the Foundation Programme which were joint publications of the United Kingdom Postgraduate Medical Education and Training Board (PMETB) and the GMC.<sup>4,5</sup>

It was also important that we looked at other intern programmes of the different countries that our Bruneian doctors now train. These included programmes in Australia, New Zealand and the United States. In addition, a group of PGATB members attended the First

Seminar on Housemanship Training in Malaysia in April 2009 which has given further insight into houseman training in countries such as Malaysia, Singapore, Hong Kong, United Kingdom and Australia. It was felt that key elements of training were very similar in these different places.

Ensuring that we adhered to the model of curricular alignment the PY1 and PY2 programme began with a mission and vision shown in Table 1 and a clear set of objectives for houseman training shown in Table 2. The key elements delivered in the programme are shown in Table 3.

The syllabus and competences required are based around those of the United Kingdom Foundation Programme but adapted to a Bruneian context. The educational programme aimed to combine supervised clinical practice and a series of delivered lectures/tutorials.

Components of supervised clinical practice included ward work (note-keeping, requesting investigations, organisation of results and supervised procedures), on-call (acute admissions and ward cover) and supervised theatre sessions (surgical specialties) and clinics (medical specialties) that are

strictly for training purposes.

Teaching sessions were based on the programme's curriculum and were delivered weekly for PY1 trainees and fortnightly for PY2 trainees during their half-day release protected teaching delivered by invited speakers/faculty from within the MOH.

### **Reflective Practice**

An important component of the programme was reflective practice. Many educational programmes endorse the theory that learning is a life-long experience and the ability to develop as a learner is enhanced by the ability to reflect on experiences in a constructive way. A reflective tutor is appointed for the trainees who are required to produce two reflective pieces every six months for discussion with their respective reflective tutor.

### **Assessment**

Assessment of competence is needed for patient safety, discrimination for advancement e.g. progress to a higher grade or for higher training, to provide motivation and direction for learning and to judge the adequacy of the training programme.

Traditional assessments have focused on the demonstration of factual knowledge (MCQs), context-based knowledge (essays, orals) and performance in simulated circumstances (OSCEs). It has however become increasingly apparent that assessments should also be used to demonstrate performance in real-life situations. This programme utilised adaptations of the following assessment tools (DOPS, MSF/360 degree, Mini CEX and CBD) which have been demonstrated to be valid, reliable, feasible and acceptable and

are now in use in many countries as assessment tools for doctors.

### **I: DOPS (Direct observation of procedural skills)**

Traditionally procedural competence was assessed by logbook documentations of numbers and complications. DOPS was designed specifically for the assessment of procedural skills by the Royal College of Physicians, UK.<sup>6</sup> It involves the observation of practical procedures by supervisors competent in that procedure. DOPS can potentially offer more validity and reliability than a log of numbers because it is thought that numbers needed to reach competence varies with different individuals. The encounter should be representative of the trainee's normal workload e.g. for PY1 venepuncture and taking arterial blood gases. Time is set aside for formative feedback after each encounter. Competence is judged by either more senior doctors or nurses competent in that procedure. Our trainees perform six DOPS per year.

### **II: MSF (Multi source feedback/360 degree assessment)**

360 degree assessment also known as Multi source feedback (MSF) assessment is an objective systematic collection and feedback of performance data about an individual derived from others working directly with him or her. This method had been used widely in many non-medical fields to assess performance, encourage improvement in employee performance and to inform on decisions regarding promotion and job planning.<sup>7</sup> This has since been evaluated and found to be a useful tool in medicine.<sup>8</sup> 360 degree assessment can give useful information regarding generic skills like communication, leadership, team

working, punctuality and reliability. The Brunei PY1 and PY2 programme requires one set of approximately 20 MSF returns per year from a range of colleagues.

### **III: Mini CEX (Mini clinical examination)**

The Mini CEX involves a direct observation of doctor and patient interaction in real life settings with emphasis on assessment of clinical skills and attitude of trainees during consultations. It was first introduced and piloted in the United States and is now widely used for residency programmes.<sup>9</sup> Unlike the traditional CEX, it was shown to be easily repeated on multiple occasions with different patients in different clinical environments and therefore produced better reproducibility of results and offered residents better opportunities for feedback and observation by more than one assessor and with more than one patient. Our trainees are required to perform six mini-CEX assessments per year with specialist input to ensure feedback was of adequate quality.

### **IV: CBD (Case-based discussion/presentation)**

Case based discussion (CBD) is a structured discussion designed to explore professional judgement exercised in a clinical case selected by the trainee. This has been successfully implemented with junior doctors in the UK where it has received favourable reports from those involved.<sup>10</sup> Our trainees perform a slightly modified version of this with a Powerpoint presentation of the case to two Specialists. It is intended that this will improve trainees' presentation skills and also allow adequate time for exploration of aspects of the case such as investigation and follow-up. This also ensures that in addition to being given a mark of their performance (summative assessment) trainees are given

constructive feedback (formative assessment).

In addition to the above are the clinical supervisor's report, log books and a compulsory audit. These assessments are scrutinised at six monthly formal interviews by a panel of specialists appointed by the PGATB, a process known as RITA (Record of In-Training Assessment).

### **The Under-achieving Trainee**

It was essential that a process was defined for the under-achieving trainee. The current proposal is activation of Form C for 'Clear Fail' or 'Borderline' Trainees and subsequent referral to a selected external (from the training committee) Pass/Fail Committee.

Action needs to be clearly defined but could include a repeat of a segment or the whole of a post, temporary suspension for investigation and/or referral to the Brunei Medical Board (BMB).

### **Quality Assurance Trainee feedback on programme**

Feedback was taken from the first three trainees to go through PY1 training by way of an anonymous structured questionnaire. This was an unpiloted questionnaire but reflected some domains for quality assurance for standards of training in a Housemanship programme such as patient safety, curriculum delivery and management of training.<sup>5</sup>

Trainee feedback was generally positive with all trainees feeling sufficiently prepared to proceed to the next stage. Organisation at the start of the job was perceived to be difficult. They were happy with the support and supervision they received with particular jobs highlighted with positive com-

ments. The curriculum and learning portfolio were perceived to be helpful, despite being supplied late. Teaching was found to be helpful and of a good standard. The trainees thought that reflective practice was helpful but that an unfamiliar mentor or reflective tutor was harder to approach. Pastoral care was judged to be variable.

### **Educational programme feedback**

This was obtained for the latter 24 sessions of the programme of which there was good attendance by the trainees. Overall there was satisfactory feedback for structure, interesting topic, relevance, pace and amount of detail.

### **Assessment Feedback**

The DOPS, MSF, mini-CEX, CBD and RITA process were well-received by the trainees with overall satisfaction of moderate to high and were generally found to be either easy or doable apart from mini-CEX which was perceived as quite hard to carry out. One trainee cited difficulty in getting a specialist to do the assessment and one trainee found the DOPS and mini-CEX to be lengthy.

### **External Accreditation**

An external accreditation team representing the BMB was invited to assess the programme from a number of safety, education and welfare viewpoints including interviewing the trainees. This team consisted of senior Ministry of Health doctors none of whom were directly involved in programme inception, delivery or training apart from possible direct clinical contact with trainees and sporadic delivery of lectures. Provisional accreditation was granted by the team pending follow-up accreditation visit planned for August 2010.

## **OVERVIEW**

Arguably the Houseman year is one of the most important components of medical education. It is therefore imperative that our doctors have the opportunity to train in a regulated and suitably supported manner in order that we produce doctors of high calibre on par with those trained anywhere else in the world. This is necessary for MOH quality assurance and also for trainees themselves to feel confident that they have attained the same competences as their peers trained elsewhere.

Bruneian doctors will increasingly face the challenge of identifying alternative sources of post graduate medical education as availability of training opportunities declines at traditional centres such as the UK. The establishment of a medical foundation training programme in 2008 has demonstrated some of the challenges of locally delivered post-graduate medical education. This experience so far has shown that it is possible to deliver high quality training. However, such programmes are time and labour-intensive and require expertise in medical education.

At inception the programme was small with a total of three trainees and was located in two departments of RIPAS hospital. Furthermore the PGATB and the Medical Education Centre are located at the same hospital. This made co-ordination and communication much simpler. As House officer training is fairly well-developed in a number of countries, we were able to utilise their expertise and learn from their experience of house officer programmes. With small numbers, the trainee to trainer ratio was extremely favourable. Importantly, it has also been previously acknowledged that RIPAS Hospital being the only

tertiary referral hospital provides a good case mix and wide clinical experience. Indeed it is for this reason that RIPAS Hospital has been designated a teaching hospital for the Medical School of the University of Queensland, Australia.

During planning and delivery, there were some weaknesses identified in this programme which were also highlighted by the BMB accreditation team. First, there was no dedicated time within the clinical job description for core faculty, and hence by necessity time spent contributing to this programme is either taken away from their usual duties (patient contact and administrative time) or is out-of-hours, particularly preparatory. At present with only a small core group of people affiliated with the PGATB, faculty numbers are inadequate. Second, at the time of programme inception, there were no 'GMC'-type guiding principles e.g. Good Medical Practice.<sup>2</sup> Of note the BMB has now produced a booklet entitled 'Good Medical and Dental Practice' which will hopefully be used as a basis for standards of patient care and hence medical training in Brunei Darussalam.<sup>11</sup> Third, there is no dedicated funding for facilities, manpower or training programme development and delivery, much of which has at best been carried out through the good will of a dedicated few and obtained ad hoc from other budgets.

Importantly, the development of this training programme has presented a number of opportunities such as the ability to provide house officer training of equivalent (or higher

standard) than in many countries regionally and even in some cases internationally with an early introduction to medical problems that are specific to Brunei Darussalam. It may be possible to influence career choice and aid manpower planning in the future. Furthermore it may improve training for all levels with improved transferable skills amongst faculty and provide opportunities for teaching and leadership.

The main threats and limitations identified relate to the conflicting time pressures of clinical duties of trainers/facilitators and sustainability i.e. maintaining standards, momentum and educational interest as well as keeping up-to-date with advances in medical education. However, with adequate support, these can be overcome.

Overall, the early experiences illustrate some of the challenges of developing a robust system of postgraduate medical training. Whilst acknowledging that the cohort size was small, we should continue to prepare for the numbers to expand. Maintaining high quality training will be crucial. Trainee and trainer feedback following PY2 and from the subsequent cohorts will be forthcoming and should be analysed carefully and utilised in continually improving programme. Like any educational system, the PY1 and PY2 Programme can only be successful with cooperation of all stakeholders with continued support required from the point of manpower and funding to run and sustain the programme.

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