

PERSPECTIVES IN MEDICAL EDUCATION

7. Observations on Clinical Training at  
a “US-style” Residency Program at  
Teine Keijinkai Hospital in Sapporo, Japan

R. Harsha Rao

*School of Medicine, University of Pittsburgh, Pennsylvania, U.S.A.*

(Received for publication on August 8, 2008)

(Accepted for publication on December 18, 2008)

Abstract

The residency program at Teine Keijinkai Hospital in Sapporo has successfully implemented a training philosophy that is focused on the development of clinical skills and critical thinking in Japanese residents. Several elements contribute to its success. The first and foremost is visionary physician leadership, beginning with the pioneers who implemented the philosophy, and continuing through the current leadership, which has sustained the original vision. A close second is the administrative and financial commitment to invest in producing more clinically accomplished Japanese physicians, long before that need was officially recognized. Third is the program’s explicit aim of adhering to international norms by requiring three years of training, promulgating a benevolent, not paternalistic teaching philosophy and encouraging an interactive and interrogatory learning ethic. Fourth is the year-round presence of a US-trained Physician-in-Residence, to sustain the focus on clinical skills and international norms. Fifth is a long-term relationship with the Internal Medicine Training Program at the University of Pittsburgh, providing a conduit for ongoing academic exchange and programmatic advice. Last, but not least, is its avowed intention of being viewed as an “American-style program” with a preference for English fluent applicants, which acts as a magnet for trainees motivated to acquire clinical skills and competencies, with an eye to future training in the US. All these elements contribute to the program’s unique focus on teaching clinical skills and critical thinking. Others who are striving with varying degrees of success to implement a similar philosophy in Japan may benefit from studying its example. (Keio J Med 58 (2) : 84–94, June 2009)

**Keywords:** graduate medical education, internship and residency, training programs, Japan

Introduction

Over the past five-plus years, it has been my privilege to observe and critique the quality of medical education at two of Japan’s premier institutions of medical training, Keio University School of Medicine in Tokyo and the Muribushi Project for Okinawa Residency Programs. The deficiencies in the system and the progress of the ongoing reform effort observed over a number of visits are detailed in a series of reflective papers on my obser-

vations, conclusions and recommendations for change.<sup>1–6</sup> This paper, the seventh in this ongoing series detailing my growing experience with Japanese medicine in general, and Japanese medical education in particular, expands on the earlier ones, and adds new understanding to my insights. Readers interested in the body of literature in this area are directed to the earlier papers in the series. This paper will focus on observations made by me during two trips, in August 2007 and again in April 2008, to the Residency Program at Teine Keijinkai Hospital

Reprint requests to: R. Harsha Rao, MD, FRCP, Room 580 Falk Medical Building, 3601, Fifth Avenue, Pittsburgh PA 15213, U.S.A., Tel: +1-412-586-9701, Fax: +1-412-383-9586, E-mail: rhrhao@pitt.edu

(TKH) in Sapporo, Japan, as a Guest Professor. It draws extensively from an evaluative report submitted by me to the Program Director on the quality of clinical training for residents at that institution.

On those twin visits, I had the opportunity to teach and to evaluate the residents in the TKH Program, much as I have at the Muribushi Project and at Keio University Hospital, in my ongoing role as a faculty member in the Pittsburgh-Japan Program at the University of Pittsburgh, School of Medicine. Also, just as I have at those other two institutions, I have waited to publish my findings until I have had at least two opportunities to make those assessments, so that my opinion is not skewed by a single experience, or by one set of residents. This paper details my observations over both those visits, and comprises an attempt to present what I see as the strengths and weaknesses of the program. The sum of those is positive and is the reason that I am more optimistic now about the eventual success of reform in Japanese medical education than I was before.

## Historical Background

### 1. *The origins of the residency program at TKH*

Even before my first visit, I was aware of the TKH residency program's unusual designation (for Japan) as a "US-style" program and of its one-of-a-kind relationship with the University of Pittsburgh Medical Center (UPMC) and School of Medicine (UPSOM). However, it was not until my second visit that I discovered the real history behind those two unique features. It was during that visit that I sought out the opportunity to sit down for a one-on-one interview with Dr Keisuke Sakai, the first Program Director of the TKH Residency Program, and one of its Founding Fathers (along with Drs Hiroshi Maekubo, Hironori Murakami and Jun Yoshida). I left that interview with the amazed realization of having interacted with yet another astonishing medical visionary in the mold of others I have met in Japan, like Professor Amano at Keio, or Dr Miyagi at the Muribushi Project. Dr Sakai, a cardiothoracic surgeon who is now retired but still enjoys a quasi-emeritus status at TKH, is unusual in other ways, too. He is one of a select group of Japanese physicians of his generation who sought and completed clinical training as a resident in the US (in the early sixties, at Henry Ford Hospital in Detroit, MI).

During my interview with him, Dr Sakai described at length the origins and founding of the residency program at TKH in 1998. What was most helpful to me was his willingness to elaborate on the motivation underlying the establishment of a three-year training program in Japan, at a time when there was no requirement in Japan for a medical graduate to undergo any residency training, and that too well before the mandatory two year residency

training was introduced in 2004 for all Japanese medical graduates.

What I learned from him has placed my own observations of the residents' performance over two visits in their proper perspective. It has also helped me formulate a framework into which I could place my assessments of the program and my recommendations for change. What follows is a summary of my interview with him, based on notes taken by me at the time.

### 2. *A new vision for clinical training at TKH*

TKH opened in 1988 as the flagship hospital of the Keijinkai Medical Corporation. According to Dr Sakai, from the very beginning, the hospital had little problem staffing its Surgery department, thanks to the close cooperation Dr Sakai received from his surgical colleagues in the two academic institutions based in Sapporo. However, the Medicine department was a different matter altogether, and the lack of cooperation in that area resulted in an acute need for physicians to staff the non-surgical specialties. Tired of struggling unsuccessfully to fill that need, Dr Sakai, with the support of the TKH President, Dr Maekubo, decided that the time had come to stop waiting for outside help and to instead start training the internists they needed themselves. Thus was born, in 1998, the TKH Residency Training Program in General Internal Medicine (GIM).

The four objectives that the founders established for the program at its outset, as articulated to me by Dr Sakai, were:

- a. To establish a good clinical training system for medical graduates;
- b. To increase the recruitment of good candidates who, upon completion of residency, would stay in Sapporo and form a nucleus upon which the program could build;
- c. To encourage the development of better teachers; and
- d. To recruit an American Physician-in-residence who would help achieve the first three objectives.

### 3. *The early years*

It is an understatement to say that the Residency Program in GIM at TKH went through some very difficult times in the first few years. This is not surprising, if one recognizes the obstacles in the way of success at that time because of the state of medical education at the undergraduate and post-graduate level in Japan. In the first place, GIM departments either did not exist in medical schools or were given no academic status and little respect even where they did.<sup>7,8</sup> Secondly, no residency training was required of Japanese medical graduates at the time, and they could start practice immediately upon

graduation even though they had no patient contact or hands-on clinical training in medical school. Thirdly, the only form of post-graduate training available to an ambitious medical graduate who sought an academic future was single specialty training, under the iron-fisted control exerted by departmental chairmen and within the firmly entrenched feudal system of patronage that still exists within academic medical departments in Japan (*ikyoku koza*).<sup>9</sup> (Even with the advent of mandatory rotating residency training, many of the best and brightest graduates from medical school still elect to remain in academic institutions and train as super-specialists, like their mentors,<sup>10</sup> although a slim majority of graduates now elects to train in community hospitals.)<sup>11</sup>

With this as background, it should come as no surprise that there was little appreciation for the kind of ideals and vision being offered at TKH ten years ago, at a time when attitudes towards primary care and GIM were even more pernicious than they are now. It would not be too much of an exaggeration to say that it was tantamount to career suicide for ambitious graduates seeking an academic career to devote three years training in GIM in an obscure hospital in remote Sapporo, instead of staying on in their own medical schools. The only alternative career route was to go into practice straight out of medical school and basically learn patient care “on the job”; for these graduates, too, it would be a waste of time to devote three years to pursue training that was not required of them.

For all the above reasons, recruitment was a real challenge in those early years. Dr Sakai freely admitted also that the caliber of the applicants was not high enough to do justice to the ideals and vision of the founders. It is a tribute to their will and determination, though, that they were able to even get the program up and running, and to keep their dream alive during those difficult early years. That determination must be recognized and praised because it placed the TKH program in a uniquely advantageous position when the decision was taken nationally to make residency training mandatory for all Japanese medical graduates starting in April 2004. The unique advantage for TKH over many other Japanese institutions lay in its hard-won experience in organizing and running a program with a focus on clinical skills training and GIM—even if one acknowledges its fitful success in achieving those goals to that point. So, when it came time to implement the mandate, where most other programs were starting from scratch, TKH was already several years ahead of the curve.

#### **4. The next phase: Making the American connection**

In 2001, which was around the same time the decision was taken nationally to implement compulsory residency training for Japanese medical graduates starting from

2004, TKH made a crucial strategic move to sign a landmark collaborative agreement with UPMC/UPSOM. It was a master-stroke, in hindsight, because the collaboration further enhanced the residency program’s ability to exploit the opportunity and challenge presented by the national mandate for universal residency training.

According to Dr Sakai, the move to seek this collaboration grew from a realization by the founders that they needed outside expertise and experience to turn their dreams into reality. The selection of UPMC/UPSOM was the brainchild of Dr Yoshida. He reached out to a classmate of his from medical school, Dr Yoshio Arai, who was a member of the faculty in the Department of Radiology at UPMC/UPSOM. Together, they facilitated the dialogue between the two organizations which resulted in the collaborative agreement.

The official announcement of the collaboration in 2001 described it as a joint “educational voyage of discovery” for both organizations, the purpose of which was “to establish and operate a US-style residency training program in internal medicine” in Sapporo.<sup>12</sup> The document went on to echo many of the same points in my own critique of Japanese medical education in the past as it articulates the background and motivation behind the collaboration. It stated, as an example, that “historically, the Japanese philosophy of educating and training physicians has been based on students learning both from didactic experiences and from closely observing the words and actions of a senior mentor and professor. This philosophy has extended into residency training, which tends to follow an apprenticeship model through which Japanese residents have relatively less direct patient care experience than their counterparts in the United States.”

With this as the background, the objectives of the collaborative effort to set up a “US-style residency” at TKH can be deduced through five explicit criticisms in the announcement of the prevailing system of post-graduate training in Japan compared to the US.<sup>12</sup> It can be reasonably concluded that the implicit purpose of describing the lacunae in residency training in Japan at the time was to highlight the measures that would need to be introduced through the collaboration in order for TKH to rightfully lay claim to the designation of a “US-style” residency program. These are excerpted from the announcement, using the exact phraseology of the criticisms (highlighted in quotation marks), to read as the explicit goals of setting up a “US-style” residency training program at TKH:

- (a) Students would “learn the clinical skills that directly will be passed on to their patients in the form of better care and treatment”
- (b) There would be “a greater expectation for direct hands-on learning”
- (c) The program would encourage “progressive autonomy” and “increasing patient-care responsibility,

beginning in the first year of residency”.

- (d) The program would incorporate “a formal curriculum that identifies specific skills and knowledge areas that graduates must master”
- (e) It would also institute “a mandatory evaluation process”

### 5. Establishing a “US-style” residency program at TKH

The contract between the two parties to establish a US-style residency program at TKH was signed in 2001. To cement the relationship, Asher Tulsky, M.D, Program Director of the Internal Medicine Residency Program at the UPMC affiliate Shadyside Hospital in Pittsburgh was assigned to co-direct the TKH program along with the on-site Program Director at TKH at the time, Dr Hironori Murakami.

According to Dr Tulsky (personal communication), there were several “expectations” in this collaborative agreement. UPMC and the Department of Medicine at UPSOM undertook to support the TKH program directly and indirectly by providing program facilitators at Teine Keijinkai Hospital, and offering advice regarding program goals, staffing and teaching materials, and the evaluation and development of residents, as well as guidance and support to TKH residents who were US-bound. The UPMC Shadyside Internal Medicine Residency Program agreed further to annually reserve two positions for qualified TKH graduates to obtain a further 3 years of training in internal medicine, with the hope was that some would return to TKH with the skills to function as teaching faculty in GIM. The UPMC program also contracted to help TKH recruit an American faculty member who would stay in Sapporo as Physician-in-residence for a minimum of one year for on-site teaching advice and mentoring of residents. Finally, it undertook to ensure that faculty members of the Department of Medicine from the University of Pittsburgh would visit Sapporo on a regular basis to teach residents and help train the teachers.

On the other side of the equation, the TKH program undertook to:

- a) develop a structured, three year curriculum of training, evaluation and support for residents, following the US residency program paradigm of progressively increasing autonomy
- b) require that all applicants to the TKH program be fluent in spoken English
- c) make English the language of instruction at all teaching conferences and teaching rounds
- d) encourage TKH residents to visit UPMC Shadyside to observe the system of medical education and clinical training in the US, so they might better appreciate what the program at TKH was trying to achieve

### 6. Expanding the vision

In recent times, the TKH residency program has expanded beyond both the intent of its original founders as well as its agreement with UPMC/UPSOM, to include several specialties other than GIM, such as surgery, anesthesiology, pathology, pediatrics, radiology etc. The unique nature and attraction of these specialized residencies in the Japanese context has led to a welcome increase in the strength of the applicant pool. Unfortunately, this has also led to an unwelcome dilution in the focus on developing a cadre of physicians with interest and skills in GIM (one of the original objectives of the founders). It remains to be seen whether this dilution will lead to a decrease in the clinical commitment and focus that constituted the foundation of the program from its very outset.

### Evaluating the Residency Training Program at TKH

I was able to assess the content and quality of the training given to residents at TKH over the course of two visits to Sapporo separated by 8 months, each lasting for a week. During both visits, I was provided unrestricted access to the residents in a manner that was different from the previous venues I have visited (Keio University Hospital and the Muribushi Project) in two surprising and unique ways. The first unique difference was that my access to the residents was truly unfettered, with no faculty member from the program present at the bedside teaching sessions. This was in contrast to my previous experience at the other two locations, where a local faculty member was invariably present as observer/moderator at all teaching sessions.

The other unique difference was that “bedside teaching” was truly direct and hands-on at the bedside, in both the wards and in the outpatient setting, rather than in conference room settings as at the Muribushi Project. Thus, I had the unique opportunity to observe, evaluate and critique the performance of the residents (a) in a clinical setting, (b) without any prior preparation, and (c) without any outside pressure on the residents.

My initial reaction to the unfettered access was surprise because it appeared to denote a degree of confidence on the part of the current Program Director, Dr Akihiro Kishida, in the performance of the residents, that they would be able to hold their own without the watchful scrutiny of their own teachers. However, upon reflection, I realized that the confidence at TKH and the reluctance to do the same at the other venues may, in all fairness, be a product of the undeniably greater English fluency of the residents at TKH. Nonetheless, the willingness to let them “sink or swim” without supervision was quite admirable, in my opinion.

In the same vein, the bedside teaching sessions in



which I engaged were not carefully choreographed, as they were at the Muribushi Project, with prepared presentations. They were off-the-cuff, unrehearsed presentations of patients encountered by me at random on walk rounds with whichever team was available to accommodate me, or in the outpatient department on any patient who happened to walk in while I was there. Thus, I was able to evaluate the TKH residents' clinical and critical thinking skills in the most realistic, natural and spontaneous manner possible.

My evaluations of the residents and the residency program itself are based on these interactions, and on multiple free and frank discussions with Drs Tulsy and Kishida. I will place my observations at TKH in the context of the terms of the collaborative agreement and the intent and philosophy enunciated in the announcement, much as I have done previously with the Muribushi Program, which I evaluated using its own "Charter of Aims".<sup>6,13</sup> In so doing, I will not dwell on the UPMC/UPSOM end of the collaboration. Suffice it to say that UPMC has lived up to the contracted offer of support, with (a) Dr Tulsy's active involvement in the TKH program through repeated visits over the years, (b) the successful recruitment of highly qualified American faculty to fill terms of 1 to 3 years as Physicians-in-residence, (c) multiple visits of other ad hoc faculty, such as myself, and (d) recurrent opportunities provided to TKH residents to complete electives as observers at UPMC Shadyside Hospital, and the recruitment of several TKH residents to the UPMC Shadyside Residency Program in Internal Medicine.

The role of UPMC/UPSOM and any contributions they might have made to the success of the TKH program are not the focus of this paper. Nor was it the purpose of my visit. The issue here is the progress that the TKH program has made towards achieving not just the items listed in the collaborative agreement, but also towards fulfilling the philosophy of "US-style" clinical residency training, described in the announcement. To this end, it is my intention to provide a quantifiable estimate of the degree of success that the TKH program has achieved by using two yardsticks for success that are immediately available for this purpose:

- A. The first yardstick is the degree to which the Program has implemented a **Training Philosophy based on Teaching Clinical skills** as described in the official announcement of the UPMC-TKH collaboration
- B. The second measure is the degree to which the TKH Program has fulfilled the **Programmatic Details of a "US-style residency"**, as required in the collaborative agreement with UPMC/UPSOM

### A. Is the Training Philosophy at TKH Focused on Teaching Clinical Skills?

The announcement of the collaboration between UPMC/UPSOM and TKH provides the necessary tools for measuring what has been achieved by the program in the context of implementing a philosophy of clinical training at TKH. The individual components of that philosophy (which, as noted above, appear in the document as criticisms of the prevailing system of Japanese residency training) also provide a framework into which I can place my own experiences over two visits to TKH. As enumerated earlier, the five components described in that announcement that can be modified into objectives were:

- 1) To inculcate clinical skills that promote better patient care
- 2) To promote direct hands-on learning for residents
- 3) To encourage progressive autonomy and increasing patient-care responsibility
- 4) To develop a formal curriculum
- 5) To implement a mandatory evaluation process

#### 1. *Does the TKH program inculcate clinical skills that promote better patient care?*

This is, of course, the centerpiece of the collaborative effort, just as it is of the entire effort to reform and upgrade Japanese medical education as a whole and Japanese residency training specifically, ever since the Ministry of Health made a two year period of internship/residency mandatory for all Japanese medical graduates.

As I have observed before at some length in previous publications, the single greatest problem in Japanese medical education (and, by extension, the Japanese health care system itself) is its failure to develop even the most fundamental clinical skills in its physicians-to-be, like the ability to take a comprehensive history and to perform a complete, systematic physical examination.<sup>3,4</sup> The extent of this failure in clinical skills instruction in Japan is glaringly evident even in a place with an avowed interest in clinical training like the Muribushi Project.<sup>6</sup> Moreover, the failure is widespread, not just restricted to the two institutions I had visited previously nor isolated to a minority of trainees, as I have described elsewhere.<sup>6</sup>

Correcting this failing represents the single biggest challenge facing would-be reformers, because a culture of interactive learning and inspirational teaching is non-existent in Japan, where didactic instruction and a long-standing feudal tradition of prolonged apprenticeship used to be the norm. Moreover, a single-minded focus on specialty skills training, coupled with a lack of GIM departments in most medical schools further exacerbates the problem,<sup>3</sup> since these are the traditional bastions of

clinical skills training in most other systems and countries.

Only by understanding this crucial fact can one appreciate what is being achieved at TKH. This is not to denigrate the achievements being made elsewhere, like the Muribushi Project, which is ahead of the curve in recognizing a need for clinical training. It is to extol the progress that has been made at TKH in translating the recognition into action and action into success. The residents' performance and the dedication of their teachers are a testament to the success of the TKH program in inculcating clinical skills that promote better patient care.

#### *Assessing the residents' clinical skills:*

My experience on the very first day of my first visit is an excellent example of the clinical skills that TKH residents possess. The case was one of severe hyponatremia and the presentation was of exceptional quality, reminiscent of the best case presentations I heard in Okinawa.<sup>6</sup> I was mindful, however, that those very presentations in Okinawa, as excellent as they were on the surface, actually hid a very shallow understanding of clinical medicine and did not stand up to careful scrutiny. So, I probed the presenter and the audience to see if they truly understood the significance of the different elements in the history and physical. To my amazement, all present seemed to recognize the purpose of the various elements. For instance, they knew the reason for asking questions regarding thirst and fluid intake (SIADH vs primary polydipsia) and postural symptomatology (volume status and adrenal insufficiency), as they were aware of the importance of recording orthostatic blood pressures (euvolemic vs hypovolemic hyponatremia) and performing a neurological examination, including a mini-mental exam for subtle neuropsychiatric changes associated with hyponatremia. The discussion that followed was lively and purposeful, and even though there were some members of the audience who were afflicted by the Japanese student's ever-present bug of passivity, for the most part they displayed a self-confidence that was quite remarkable and highly unusual, in my experience.

The foregoing was typical of the case discussions that occurred at the Morning Report conference every day that I was there. On each occasion, the case was presented with appropriate attention to clinical detail, the development of a line of reasoning leading to a focused differential diagnosis, and a coherent resolution of the major clinical issues in the case.

Nor was this pattern isolated to the formal, prepared case presentations. On multiple occasions, during ward rounds, and in the outpatient department, when the discussion took an unexpected turn, a number of the residents displayed the necessary critical thinking skills to pivot and follow a different line of thought. For instance, in the outpatient department, in a case of a patient

with a long-standing, but suddenly expanding goiter, the resident was able with minimal help to make the connection between Hashimoto's thyroiditis and thyroid lymphoma. In another case, the finding of a large ulcer on the anterior shin of a patient with diarrhea opened the door to a discussion of the relationship between pyoderma gangrenosum and inflammatory bowel disease. These are examples of the more exhilarating aspects of my interactions with these residents.

In fairness, it must be noted that the presentations I have recounted above were by the more senior (second and third year) residents. My interactions with the interns were less encouraging. In particular, my second visit, in April of 2008, when the new set of interns had just arrived, revealed that the new entrants were as unskilled and unfamiliar with clinical practice as any others I have encountered in Japan. In fact, at a mock "OSCE" -type session conducted while I was there, all four interns failed to fulfill even the most basic requirement of even a limited history and physical examination. By contrast, several of the "freshly-minted" second year residents (just 2 weeks removed from their first year) displayed a considerably greater clinical maturity in fulfilling their roles as senior members of the ward team, compared to their own performance as first year residents during my first visit just 8 months earlier.

This actually proves an important point: that the second year residents could only have achieved this degree of clinical maturity from a progressive increase in clinical skills through the training in the first year, and that the same could be expected of the incoming first year residents. And much of the credit for this must go to the quality of the clinical instruction they receive at TKH.

#### *Assessing the teachers at TKH:*

Obviously, none of this would be possible without dedicated teachers, and the TKH program has been blessed in this area to this point. Dr Kishida remains one of that rare breed of visionaries in Japan with whom I have had the privilege to interact, who fight against all odds to implement a vision of clinical excellence as a focus of training for Japanese medical graduates. He is the face of the Program in much the same way as Dr Miyagi is at Muribushi. I find his commitment to teaching and clinical training particularly noteworthy, because he is a surgeon! Notwithstanding his busy schedule, he attends all Morning Report conferences, and it is his presence that ensures a consistently impressive turnout for that conference.

The strong GIM department that I encountered at TKH during my first visit was one of the most pleasant of all the surprises I have received during my five year involvement in Japanese medical education. It gave considerable hope that teachers and teaching would become highly valued components of the program. However, the

recent exodus of several of these faculty members has left the GIM department bereft of a sufficient quorum of teachers in the past year (which was painfully obvious on my second visit). If this loss of faculty were to continue, the success that TKH has achieved so far will be unsustainable.

Finally, TKH, with the help of UPMC/UPSOM, has been able to fill the position of American Physician-in-residence over the years, without a break, with a series of highly motivated teachers. The constant presence of a highly committed teacher with few service responsibilities is a major reason for TKH's success in maintaining a clinical focus in training. This may be placed in jeopardy if this individual is required to shoulder the entire burden of teaching with the recent decimation of the GIM department.

On balance, then, my assessment is that the TKH program has established a clear clinical focus for its training philosophy up to this point. Unfortunately, my enthusiasm is tempered by the recent loss of GIM faculty, which calls into question the continued maintenance of this otherwise admirable focus.

## **2. *Does the TKH program promote direct, hands-on learning for its residents?***

The two venues that make for the most direct, hands-on learning experience for residents are the outpatient (ambulatory care) clinic and the inpatient wards. During my twin visits to TKH over this past year, I had the opportunity to interact with residents at all levels of the program one-on-one at the bedside in both the inpatient and outpatient settings, as well in groups in conference discussions. In all these interactions, I was impressed by the knowledge and understanding that many of them possessed, particularly in the areas of critical thinking and analysis. While there were a few residents who were clearly the clinical equals of any of the best I have encountered in my experience in the US, the majority were certainly functioning at a more-than-acceptable level, particularly in the context of the level I have seen at the other venues I have visited in Japan.

Specifically, I was able to ascertain that the second and third year residents were able to construct a valid differential diagnosis based on clinical findings, establish a reasonably acceptable sequential priority of investigative procedures and tests, and even present a plan of treatment based on the available information. All of these were done, in several instances, unrehearsed and without any preparation, showing me that these were skills that had been acquired through a hands-on approach. Obviously, this was not universal, because there were also some residents who performed at a marginal level at best in these areas. In the majority of instances, however, the clinical skills of the more senior residents were fair-to-

excellent in my estimation, and certainly well ahead of those I had encountered earlier in Japan. Moreover, the fact that the clinical skills of the more senior residents stood out in such clear contrast to those of the first year residents was clear proof of the success of a hands-on approach to clinical training during the residency at TKH.

In one important regard, however, the residents at TKH were no different from all the other residents and students I have had the privilege of teaching in Japan: their enthusiasm and fascination for anything and everything having to do with clinical medicine. This is so universal in my multiple experiences in Japan that I am convinced even more than I ever was that the passivity of the students can be overcome, if medical education is made more interesting, interactive and clinically relevant, and provided teaching attitudes can be changed and clinically adept teachers can be found.

## **3. *Does the TKH program encourage progressive autonomy and increasing patient-care responsibility for its residents?***

TKH has attempted to institute a system of progressively increasing patient-care responsibility, with second year residents given greater authority than the interns. This was evident in the team approach on the wards, with interns doing much of the basic work, and the second year residents providing the supervision and teaching. On several occasions, I got the very distinct sense that the senior members of the team took their responsibility for teaching the first year residents very seriously. The extent to which that attribute was manifest depended on the individual resident, but in some instances it was very well developed, suggesting a high degree of interest in imparting clinical instruction to the juniors. Moreover, the progressive increase in clinical skills from the first year to the next that I witnessed, as noted above, confirms that increasing responsibility from the first to the second year at TKH is a verifiable fact. However, cause and effect are hard to determine from cross-sectional observations, such as mine. In the final analysis, though, it matters little whether the progressive increase in patient-care responsibility is a consequence or the cause of the increasing clinical skill. After all, the fact that both should occur synchronously is a highly desirable goal in any good residency training program.

These observations are a clear example of the success that TKH is having in encouraging progressively increasing patient-care responsibilities for its residents. Unfortunately, this goes only so far as I have described. Where TKH has failed is in taking the next step, which is to give third year residents a clinical teaching role in the residency program that allows them true autonomy under supervision. Instead, TKH chooses to use the third year

resident to fulfill service needs in the Emergency Room. While there may be nothing inherently wrong with so using these residents, it defeats the purpose of having a third year of “training” if the senior-most residents, with the greatest experience, are simply shifted to a service role. This means, in effect, that their training is aborted at a stage that is no different from any other program, so that the value of that additional year of training is lost to the residents. Just as disappointing is the loss to the program itself of their clinical experience and teaching skills. This is, in my opinion, a critical failing that needs to be corrected if the true spirit of residency training in a tiered three-year system is to be achieved at TKH.

#### **4. *Has TKH developed a formal curriculum for its residency training program?***

The second major failing in the residency program is the lack of a formal curriculum. This is, of course, no different from most other residency programs in Japan, which consist of a series of subspecialty rotations strung together to make up the two year mandatory training period, as described earlier by me, and also noted by Teo.<sup>11</sup> However, it is surprising that the TKH program has failed to develop a written curriculum, despite its seven year-old commitment to do so in its agreement with UPMC/UPSOM, and its avowed intention of being viewed as “American-style”. The fact that a formal curriculum is not required for Japanese residency training may be responsible for this inertia, but it does not excuse it. This is a failing that must be corrected if the program is to take the next step to achieving its avowed objective.

The failure to develop a curriculum to date takes an even more concerning turn with the recent expansion of the program, as noted earlier, to applicants for several other specialties. With the increased demand to satisfy multiple curricular needs, the ability to develop and implement an effective curriculum in even one of them is further compromised. A related problem is that the entire program continues to be directed by a single individual, the Program Director, Dr Akihiro Kishida (I will return to this later).

#### **5. *Has TKH implemented a formal evaluation process for residents and teachers?***

This is the third area of major concern. Suffice it to say that TKH has not developed, let alone implemented, any form of evaluation, either by the program or its residents or of the program by its residents.

I have described in an earlier paper the vital role that feedback (in both directions) plays in helping to improve a teaching program.<sup>2</sup> It seems redundant to reiterate yet again the benefits of such evaluation, but what seems so obvious to the eyes of this outsider may not be to those

used to a system that neither requires nor appreciates it. Clearly, there are cultural impediments to honest feedback in Japanese society as a whole, which translate into an unwillingness to say or write anything negative about a teacher in Japan.<sup>2</sup> While these barriers may explain the reluctance of other programs to institute feedback evaluation, they must be overcome if a program seeks to justify its claim to being “American-style”.

Accurate feedback forms the very backbone of an effective training regimen in any field of learning, which is why it is difficult to overstate the value of an effective two-way evaluative process. From the standpoint of the residents, the most obvious benefit is that they get to know where they need to focus their efforts to improve. Its benefit to the Program Director is equally valuable: honest and constructive two-way evaluations can identify areas of strength or weakness in the program, as well as recognize those residents who might need remedial training or extra help to improve performance. One major related issue, in this regard, is that the TKH program has no mechanism to identify residents who are in distress from a personal standpoint or are having trouble coping with the stresses of a busy residency. At present, a distressed resident has to be recognized and reported by a fellow resident to the administrative staff, and then to the Program Director. This is both completely unreliable and highly unlikely, particularly in the Japanese context. Moreover, even in the remote likelihood that a distressed resident were to be recognized, there is no formal mechanism, as would exist in an American residency program, for anonymous remedial intervention. At TKH, such help, if it were needed, would be provided on an ad hoc basis, there being no clearly established way for the resident to receive the necessary professional help to resolve either professional or personal distress.

The program’s failure to evaluate is inextricably linked to its failure to develop a formal curriculum. After all, if there is no formally outlined curriculum with clearly identified goals and objectives in developing competencies, there can be no way of assessing either the trainees’ achievement of those competencies, or the program’s ability to develop or deliver the requisite competencies. In other words, evaluation can only be relevant if there is a formal curriculum to establish the parameters and domains of the evaluative process.

In summary, therefore, the TKH program certainly has achieved considerable success in implementing and maintaining a training philosophy that is focused on the acquisition of clinical skills. However, it has failed to follow through in several areas of clinical training that are crucial to enhancing the quality of the training it offers.



## B. Has TKH Implemented the Programmatic Details of a “US-style Residency”?

The collaborative agreement with UPMC/UPSOM, as described to me by Dr Tulskey, provides the framework to answer this question in a comprehensive manner. The individual elements can be viewed as “successes” and “failures” in the context of implementing the programmatic details of a US-style residency that TKH contracted to fulfill in the agreement.

i. My observations verify that the TKH program has been very successful in inculcating clinical skills in its residents. In fact several of them possessed clinical skills that were superior to those of residents at comparable levels at the Muribushi Project, the other venue in Japan where I have had the opportunity to observe and critique residency training in Japan.<sup>6</sup> Using a different yardstick, several of the second and third year residents displayed a clinical maturity and understanding that would allow them to function successfully in a US residency program.

ii. Much of this success has come from the fact that faculty members from the US have been successfully recruited as Physicians-in-residence for terms ranging from one to three years, with the specific intent that they would be full-time teachers, helping to guide and coordinate the teaching program. Their continuous presence over the years, in my opinion, has been largely responsible for developing the American-style clinical focus of the program.

iii. Another reason for the success is the fact that, until recently, the TKH program remained true to the original intent of its founders in focusing exclusively on GIM. As a result, the GIM department was able to develop a distinct identity and stature with the hiring of several Japanese-trained internists and even a US-trained couple with both general medicine and subspecialty certification (in Pulmonary Medicine and Rheumatology). These individuals formed the backbone of the GIM teaching faculty and were responsible for maintaining much of the clinical focus in the program to this point.

iv. Several graduates of the TKH program have successfully applied for and been accepted in not only the UPMC Shadyside Internal Medicine Residency Program over the years, but also in other programs around the country. This success reflects my own assessment that the TKH program inculcates the appropriate skills in its graduates to make them competitive in US residency program. In point of fact, the very first graduate of the program excelled to such a degree in the UPMC Shadyside program that she was sponsored and selected for the highly competitive fellowship in GIM at the University of Pittsburgh.

v. Several of the residents were comfortable conversing and engaging in impromptu case discussions in English (the language of communication at most conferenc-

es, and the language of instruction at all morning report and afternoon case discussions that I attended). This was also true of teaching rounds at the bedside. The comfort that many residents displayed in the use of English in these situations demonstrates the program’s success in promoting the use of English in its trainees. The requirement for fluency in English in applicants is a unique aspect of the training being given to residents and represents a courageous attempt to prepare residents and make them competitive to apply for training outside Japan.

Counterbalancing these successes are three major failures by TKH to implement critical elements that define a US-style program that have been covered in the previous section.

i. One is the failure to develop a formal curriculum.

ii. The second is the failure to provide or obtain feedback through evaluation.

iii. The third is the failure to ensure true autonomy at the senior resident level.

iv. A fourth concern is very specific to the TKH program, and thus belongs in a separate category, in addition to the foregoing: the program has clearly failed to consistently apply the requirement for English fluency as a qualification in its applicants. While this is not a criticism in the more general sense of the quality of residency training, it can be classified as a failure in this specific circumstance, because of the contracted commitment to require fluency in English in applicants. The English-speaking skills of the residents I encountered were highly variable. While several were fluent English speakers, there was a minority that was unable to participate in the interrogatory learning atmosphere because of a lack of even rudimentary English-speaking skills.

The failure by TKH to consistently abide by its commitment to hire only English-fluent applicants is troubling in the context of the emphasis that is placed on presentation skills requiring English. I greatly suspect that this might lead to a sense of exclusion or of inadequacy, or even of “second-class status”, in those residents who are not English-fluent, contributing significantly to performance stress in these individuals. Without a true evaluative process in place, it is difficult to determine whether or not this stress is undermining or affecting their performance in any way, but there is an undeniable potential for serious problems. For this reason, I believe that the program should either apply the policy uniformly and consistently or else abandon it altogether.

### Recommendations for Improvement

TKH has been very successful over the years in attracting strong applicants from several of the best medical schools from all over the country to their residency program. All criticisms apart, the program has attained a

degree of prestige among prospective candidates, particularly among those with intentions of applying to a US residency program for further training, as a program that is an excellent preparation for such a future. TKH has, indeed, established a good clinical training system for its graduates, particularly with regard to developing good clinical skills. My assessment is that several of their trainees display a degree of competence that would be commensurate with that of most US medical graduates — which is very commendable, indeed. As commendable as this achievement is, there are several areas that cry out for attention, if the program is to be strengthened and its quality improved even further.

I would make the following recommendations for improving both the quality of clinical training, and the quality of the teachers in the residency training program at TKH.

i. It is critical, with the rapid expansion and diversification of the program, to hire a full-time Associate Program Director responsible for GIM training, in order to re-emphasize the pre-eminent role of GIM training at TKH as originally envisioned by the founders of the TKH program. If the program is to return to its roots and fulfill the vision of clinically focused training, this move is a must. The role of this individual would be to complement Dr Kishida's role as overall Program Director, as the one with day-to-day oversight over the GIM residents, while Dr Kishida would retain day-to-day responsibility for Surgery training.

ii. It is very important to delineate and assign specific roles and functions to interns (PGY-1) and residents (PGY-2) on the wards, so that each member of the resident team understands their patient care responsibilities; at the present time, the roles are blurred, with interns and residents having to interpret, understand and work out their responsibilities for themselves and between themselves, in an ad hoc fashion.

iii. It is equally essential that TKH establish a true three-tiered system of progressively increasing autonomy over three years within the residency program, in which PGY-3 residents are assigned as teachers and mentors to their juniors, instead of service providers, as they are now.

iv. The Program must develop a written curriculum that specifically describes the training objectives for the residents, the core content they are expected to master, and the manner in which they are to acquire specific skills at various stages of their training. The concerns described under (ii) and (iii) above would be addressed to a great extent through this.

v. The position of Chief Resident must be made supernumerary, i.e. the Chief must not be one among the many PGY-3 residents, but a fourth year resident whose sole responsibility is to teach and to organize the day-to-day functioning of the program. This gives the position authority and meaning.

vi. Another vital area for improvement is the lack of a meaningful two-way evaluation process (of the program and preceptors by trainees, and of the trainees by the program). To succeed in its goals, TKH must develop a mechanism that is truly anonymous and capable of being used for honest and constructive feedback. This may be the hardest of all, given the cultural constraints that I have discussed at length in an earlier paper.<sup>2</sup> For this reason, I hesitate to recommend the use of any tools developed in other countries. The constraints being uniquely Japanese, the evaluation tools need to be developed indigenously to address the deeply ingrained cultural barriers to evaluation among both students and teachers. TKH could claim the mantle of a pioneer in this area if it were to develop such a tool and prove its efficacy and applicability in the Japanese context.

vii. GIM faculty must be supported and given status by the hospital, if the goal is to retain them as teachers in the Program. In particular, there must be a concerted effort to change the prevailing view that GIM is a “wastebasket” in which only those cases belong where a specialist has no role.

viii. The loss of GIM faculty places the success that TKH has achieved so far in jeopardy. To counter this, TKH must develop an incentive package that attracts graduates of the program to stay on as members of the faculty after they complete their residency. TKH has recruited excellent candidates to the residency, including some with strong regional ties to Hokkaido. So far, however, TKH has not been able to build on that achievement by offering them any incentive to remain in Sapporo — one of the original goals of the program. This remains a major disappointment, because developing and retaining graduates of their own program as faculty, in my opinion, should be a major source of highly qualified members of the GIM faculty at TKH.

ix. In particular, the creation of a 4<sup>th</sup> year Chief Resident position can become an incubator of teaching talent in the program, and a stepping-stone to a future career in GIM at TKH.

x. Finally, the program should make a decision one way or another to either abide by its commitment to hire only English-fluent applicants or abandon English as the medium of instruction altogether.

## Conclusions

In summary, there is much to cheer and to commend, because the program at TKH seems far ahead of others of which I have direct or indirect (through other members of the Pitt-Japan Program) knowledge. A long-standing and visionary commitment to clinical training (years before it became “fashionable” to do so in Japan), the collaborative agreement with UPMC/UPSOM, and the steadfast support of hospital and corporate leadership

are all vital components of the success of the program in attempting to incorporate US-style residency training practices at TKH. These elements, each vital in its own way to the overall success, constitute a model that others may wish to emulate.

Despite these accolades for what has been achieved, there is much to be cautious about. The success that TKH has achieved in implementing a training philosophy that is focused on clinical skills training may be placed in perspective if one reviews the original intent of the founders of the residency program at TKH, as described to me by Dr Sakai. The four objectives were:

- i. To establish a good clinical training system for medical graduates.

My Assessment: It has (with caveats, as described)

- ii. To increase the recruitment of good candidates who, upon completion of residency, would stay in Sapporo and form a nucleus to build on.

My Assessment: It has not given graduates of its program an incentive to stay on as teachers and mentors.

- iii. To encourage the development of better teachers.

My Assessment: It has been successful in attracting good teachers of GIM until recently, but has failed to retain them.

- iv. To recruit an American Physician in Residence who would help achieve the first three objectives.

My Assessment: It has maintained an unbroken record of keeping an American faculty member on site over the past several years.

Based on these four points, the TKH program can be said to have fulfilled some but not all of its founders' goals. The incomplete success in fulfilling both the dream of its founders as well as its own contractual obligations in its agreement with UPMC/UPSOM should not detract from what it has succeeded in achieving. TKH has achieved more and gone further than I ever expected. That proves to me how much can be achieved in the Japanese context with the will, commitment and support of

leadership. Obviously, much remains to be done. It will take even greater will, commitment and support of leadership for the dreams of its founders to be fulfilled. Nevertheless, TKH's successes to date do point the way for others who are attempting to make residency training and, ultimately, medical care itself more clinically focused within the Japanese medical system.

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