

## **Suva Gastroenterology Training Center - WGO Info Package February 2011**

Name: WGO Suva Training Center

Location: Suva, Fiji

Center Director: Dr Joji Malani

Co-Directors: Professor Finlay Macrae, Dr Thein Htut

### **Introduction:**

Members of the Gastroenterological Society of Australia partnered with the World Gastroenterology Organisation (WGO) to develop the latest WGO Training Centre at the Fiji School of Medicine (FSM). In close consultation with FSM, a program has been developed for integration into the School's postgraduate training in medicine over the last three years.



FSM is one of only three institutions in Fiji and the Pacific Island nations to offer local medical training in the region. With such limited training available and a regional population totalling approximately 1.7 million people, the ratio of doctors per 1000 population is at a mere 0.1 – 0.4. The shortage of doctors in nearby countries, such as Australia and New Zealand, has contributed to this “brain drain”, as local doctors seek employment abroad. From 1987 to 2002, 510 doctors left the government health service in Fiji, while during the same period, only 284 graduated from the Fiji School of Medicine.

Until recently, specialist training in the South Pacific was unavailable and has often been undertaken abroad, making it difficult for doctors who have become accustomed to life in their new environment to return home again once their training has been completed. Thus, the lack of local specialist training has been conducive to the “brain drain” being witnessed in the region. However, local postgraduate programs have been shown to help combat this trend in that doctors-in-training work for most of the time in their home country while learning to diagnose and treat disease with the resources available, thereby making them less likely to leave their home country once specialist qualification has been achieved.

The current program has been created to address the need for local specialist training in Gastroenterology in the South Pacific, which had previously been absent in the region. The Australian Gastroenterology Fiji Training Team members contribute to training in endoscopy, hepatology and luminal gastroenterology.

The official inauguration of the WGO Training Center in Suva, Fiji took place on October 26, 2008.

### **Main Objectives / Goals:**

To promote the highest standards of endoscopy service and training in gastroenterology, hepatology, endoscopy and digestive surgery. This will be achieved through the following:

- a. Provision of a well designed facility that streamlines patient movement and care and allows safe and efficient endoscopic investigation and therapy.
- b. Establishment of a proper Endoscopy Unit with its Administrative organisation
- c. To promulgate best practice guidelines in the prevention, detection and management of digestive disorders.

### **Teaching Facilities:**

The Suva Training Centre is located at the Endoscopy Unit, located in the Colonial War Memorial Hospital (CWMH), the main hospital for the Fiji islands. The Colonial War Memorial Hospital is the teaching Hospital for the Fiji School of Medicine but administered by the Ministry of Health of the Government of Fiji. The centre is located within the theatre premise and has 3 rooms which include a preparation and cleaning room, an endoscopy suite and a recovery room. The rooms are large enough to accommodate all its functions and is well constructed and updated. The first room is used for preparing patients before entering the endoscopy room. It also stores all the gastroscopes, colonoscopies, consumables and accessories. The second room is for the endoscopy suite which has the endoscopy setup including a full set of Fujinon and also Olympus machine. In addition, it has all the backup equipments including oxymeters, sphygmomanometers, cardiac monitor and defibrillators. It has a full set of emergency tray which includes all emergency drugs and ETT.

The Gastroenterology program consists of a clinical component which is conducted at the Endoscopy Unit and an academic component which is conducted through the Diploma and Master of Medicine Postgraduate Program at the Fiji School of Medicine. Clinical activities are conducted in the Endoscopy Unit and wards at the Colonial War Memorial Hospital. The Academic component is taught through the Diploma and Master of Medicine module at the Fiji School of Medicine. It also is taught through ward rounds and bedside teachings conducted through daily ward rounds.

The prior programs have been taught over a 4 week period. Four Gastroenterologists from (Members of GESA) Australia conducted the whole program, both clinical and academic component (Refer to above report). In 2009 and 2010 a major advance was the inclusion of endoscopy nurses to the program (refer to the 2010 report).

In 2008, 10 doctors participated in the program and this included a candidate from Tonga and Solomon Island each. These 2 doctors are back in their own countries practising and continuing practise endoscopy. For 2009, 8 candidates participated from the doctors and 8 nurses from the 3 major hospitals in FIJI attended the program. Although all nurses are local nurses, the physician group contained candidates from Micronesia, India and China. Based on the recommendation from 2008, it was decided that we limit the numbers of candidates to 2 physicians per year in order to improve on their learning curve. In 2010, 9 doctors (all physician and one surgeon) participated, as well as 5 nurses (all Fijian). The candidates were again mainly local, but 2 nurses and 2 doctors were from Lautoka. Due to shortage in numbers of medical staff in other island countries (Vanuatu, Solomon Islands, Tonga and Kiribati), no-one was available to attend the 2010 program.

The 2008 and 2009 4 weeks programs went very well and it is likely that a further two training sessions can be organised throughout the year. It is possible that an extra session

can be organised in April and November. This will depend on the availability of the gastroenterologist and funding.

A further very successful training program, modelled on the previous years, was held in August 2010. The range of clinical problems and difficult endoscopy issues addressed through both service delivery and teaching, was notable, including long caustic stricture management, bleeding ulcers, variceal management, and polypectomies. A PowerPoint/Video report of the program powerfully captures the experience from the point of view of the teaching team (attached)

### **Faculty and Staff: 2009**

Joji Malani - Director  
Professor Finlay Macrae  
Dr. Thein Hutt  
Dr. Tony Clarke  
Dr. Peter Ketalaris  
Dr. Donald Ormond  
Dr. Andrew Taylor  
Dr. Ian Roberts-Thompson  
Dr. Daniel Worthley  
Dr. Robyn Nagel  
Nurse Unit manager and Trainer Dianne Jones  
Endoscopy Nurse Cathy Conway  
Staff Nurse Maraia Nadakuitavuki

### **Faculty and Staff: 2010**

Dr Joji Malani  
Professor Finlay Macrae (In absentio)  
Dr Thein Htut (In absentio)  
Dr Chris Middleton  
Dr Chris Leung  
Dr Chris Hair  
Dr Mark Norrie  
Endoscopy Nurse Ms Kathy Pietris  
Endoscopy Nurse Ms Lula Britten

### **Equipment and Procedures**

1. Endoscopy Units
  - a. Fujinon equipments. These were donated by the Fujinon through the WGO in 2008-9. This consists of 4 complete units of processors and light source, 5 gastroscopes, 3 colonoscopes, 3 flexible sigmoidoscopes and one Sony screen. They have been a boon to complement the otherwise ageing facilities.
  - b. Older Olympus machine setup includes one processor, one light source, one screen , one gastroscope and one colonoscope.



2. Accessories: Boxloads of donated accessories were shipped in with the Australian team, including limited supplies of banding devices, sclerotherapy needles, forceps (disposable and re-useable), polyp snares, endoloops, clips, and PEG tubes. There is a need to develop a sustainable method of maintaining the stock numbers.
3. Consumables and medications, including donated proton pump inhibitors and bowel preparations.
4. Suction machine
5. Automatic Washing machine for the Olympus. An additional part will also allow Fujinon scopes to be cleaned through this machine.
6. Oxymeters
7. CPR machines
8. Computer
9. Printer
10. Gastroenterology software program for reporting. The program was updated and re-commissioned during the 2010 visit.

**Areas of Training:**

- Endoscopy
- Hepatology
- Luminal Gastroenterology
- GI Surgery
- Paediatric Gastroenterology

**Courses Offered:**

1. GE training is offered through the module of gastroenterology in the postgraduate curriculum, typically in August.
2. Plans to extend support for training in endoscopy throughout the academic year are in place – to be implemented in 2011.
3. Opportunities for established GI specialists from the region to “upskill” may be available

**Regulatory Requirements:**

All doctors and postgraduate trainees at the Fiji School of Medicine are covered through the MOU with the Fiji Ministry of Health. Health insurance and visa requirements are usually in place. But any foreign trainees in the future will need to forward their application in advance so that we can process these requirements beforehand.

**Certifications:**

The centre has provided certifications for both nurses and doctors who have attended the sessions. In 2010, an official certificate from the WGO-FSM Training Centre has been struck to recognize the contributions made by the Australian gastroenterologists and nurses.

**Trainee Application Process:**

The 4 weeks training usually is conducted during the month of August each year. Planning is underway to add 2 further week-long programs in April and November each year. Because of the limited space for training, we would be limiting our candidates for trainees from the pacific island countries.

Application for training should be directed to:

Dr. Joji Malani  
Director  
Suva Training Centre  
Fiji School of Medicine  
Toorak, Suva  
Fiji Islands  
PH: 679-3311700  
Fax: 679-3303469  
Email: jioji.malani@fnu.ac.fj

**Further Academic Activities:**

1. Participation in undergraduate training
2. Gastroenterology Presentations to the hospital CME lectures on various issues including Hepatitis, GERD, Upper gastrointestinal bleeding, Helicobacter Pylori, Therapeutic Endoscopy, Gastric carcinoma, Inflammatory Bowel Disease.
3. Presentations and discussions to the Surgical Teams.
4. Presentations on gastroenterology issues during the Annual Fiji Medical Association Conference in 2008, and, by Dr Leung, in 2010.

**Endorsements:**

The Suva Training Center has been endorsed by the World Gastroenterology Organisation (WGO)

**Funding / Sponsorship:**

Funding and sponsorship is currently received from the following sources:

- the World Gastroenterology Organisation (WGO)
- Journal of Gastroenterology and Hepatology Trust
- Orphan Australia
- Schering Plough
- Fujinon Inc

**Philanthropic Endeavors:**

The majority of patients treated through the public system are treated at no cost. Patients who are referred from private hospitals and general practice are charged a small fee but still much cheaper than private hospitals.

**Site-Seeing Experiences**

The main activities here in Suva are sightseeing, shopping, and exploring the colourful Suva Produce Market, visiting the Fiji Museum and handicraft Centre. There are plenty coffee shops, cafes, restaurants, fast food outlets, hotel restaurants and night clubs. Although not widely known for scuba diving, the Suva reef also offers some scuba diving. The city of Suva is backed by scenic craggy highlands and not too far from the city can be found the Raintree

Lodge. It is located adjacent to the Colo-i-Suva Forest which is very good for bushwalks and leading to waterfalls. There is a Suva Golf Course where the famous Vijay Singh used to play in his earlier days.

The main tourist areas on the Coral Coast and outer islands are 3 to 4 hours away from Suva and they have some of the best relaxing areas which can be enjoyed over the weekend periods.

Two of the websites include:

<http://www.fjisuva.com/>

<http://www.fijime.com/>

**Training Center Needs:**

Supply of Bowel Preparations

Teaching Materials

Video conference capability to participate in international conferences

Gastroenterology Consult to be available for urgent consultation

Local endoscopy nurses to be sent abroad for further training

**Suva Training Center Scholarship Amount:**

**Please contact the WGO Executive Secretariat for further information**

**mlopez@worldgastroenterology.org**

## **APPENDIX A – REPORT BY Australian Gastroenterologists:**

### Background and Introduction

Fiji, together with several other island nations (e.g. Vanuatu, Solomon Islands etc), forms part of the larger Pacific subregion of Melanesia. These nations are isolated from each other by distance and ocean. Gastrointestinal diseases in Melanesia are managed by primary care physicians, general physicians and general surgeons. There are no specialist gastroenterologists in any of these island nations.

Fiji has a population of approximately 875,000, with nearly 90% of people located on its two largest islands, Viti Levu and Vanua Levu. The main ethnic groups are Fijian (51%) and Indian (44%). The major burden of gut diseases seen in Fiji is predictable for such a setting. For example, gastrointestinal infections including amoebic colitis and *Helicobacter pylori* appear prevalent, although there is limited knowledge as to the true prevalence of disease. Western gastrointestinal diseases such as inflammatory bowel disease and colonic polyps are seen, but uncommon. Viral hepatitis, in particular chronic hepatitis B, is present although the prevalence is also not clear.

The Fiji School of Medicine is integral in training medical practitioners from across the Pacific, and has a postgraduate training scheme that confers diplomas and masters in medicine. These courses include a gastroenterology module. Endoscopy is provided in two hospitals in Fiji, namely the Colonial War Memorial Hospital (CWMH) in Suva, and the smaller, regional hospital of Lautoka on the Western Coast of Viti Levu. Since 2008, formal endoscopy training has been provided at CWMH by visiting Australian gastroenterologists during a month long formal visit. This has extended to include a strong educational focus in gastroenterology and hepatology alongside the diploma and masters of medicine teaching.

There have been significant developments in endoscopy training at CWMH since the initial visit in 2008, including a generous donation of endoscopy equipment by Fujinon which was installed by the visiting team in 2009, and the inauguration of the centre by the World gastroenterology organisation (WGO). The donated equipment together with annual training visits by Australian gastroenterologist and gastroenterology specialised nurses has improved the standard of diagnostic endoscopy performed by training physicians and surgeons, and allowed several therapeutic endoscopy techniques to be achieved, including treatment of acute gastrointestinal bleeding and endoscopic variceal band ligation.

In 2010 there were 5 teachers and 2 nurse consultants that attended the Colonial War Memorial Hospital (CWMH) and the Fiji School of Medicine, both based in Suva, Fiji. They included Dr Mark Norrie, Dr Chris Hair and Mrs. Lula Britten (team week 1 &2), Dr Chris Middleton, Dr Chris Leung and Ms Kathy Pietris (team week 3, 4&5) and Dr Betty Kawake. During the months of August and September, teams conducted endoscopy training, attended ward rounds and provided specialist consultation and lectures in gastroenterology at CWMH. A series of educational lectures and bedside teachings were provided to medical trainees and some medical students. Most of the senior participants were physicians and surgeons from two sites in Fiji (Lautoka and Suva). In addition, the program provided further education and skill development to nurses from Suva and Lautoka. Whilst invitation was

sent to other Pacific Island Country Doctors, unfortunately none were able to attend due to staff shortages.

The program developed upon a solid foundation that had been formulated during the past 2 years of support at the WGO SUVA gastroenterology training centre. All members of the 2010 teaching program have returned with significant enthusiasm to subsequently support the program, and a greater appreciation of the service that is being developed through the training centre in Suva. The following report provides an outline of the experience and developments during the 2010 program.

#### Educational Programme (August 2<sup>nd</sup>-27<sup>th</sup>)

In addition to bedside endoscopy training, team members delivered a series of grand round lectures, teaching modules for the diploma and Masters of Medicine registrars, informal teaching to surgical staff and clinical teaching rounds with the Masters of Medicine candidates. This formed the core component of education delivery of the programme.

Grand round lectures were delivered in the CWMH auditorium to an audience of around 30-40 members consisting of senior medical staff, registrars, interns and medical students. The lecture topics delivered were an update on chronic hepatitis B, inflammatory bowel disease, gastrointestinal bleeding and noteworthy GI and liver cases. Dr Leung attended the Fiji Health Symposium and presented a plenary lecture on fatty liver disease and upper GI cancers.

Masters and Diploma of Medicine teaching was conducted in small groups (approximately 5-6 candidates) with audio conferencing to other trainees, providing coverage in other areas of Fiji. Powerpoint was available and lectures have been copied to the educational programme master drive (Dr Jioji Malani). Lectures were delivered covering approaches to liver disease, viral hepatitis, chronic liver disease, physiology of GI tract, motility and oesophageal disorders including gastro-oesophageal reflux disease, inflammatory bowel disease, clinical management of and approach to acute GI bleeding. Some of these sessions included multi-choice questions from the relevant DDSEP5 modules. Trainees were keenly engaged in the teaching sessions and seemed fairly satisfied at the conclusion of each.

Case presentations were provided at physician and surgical meetings and included H.pylori, Proton Pump Inhibitors, capsule endoscopy, and GIST tumors. Teachers provided formal bedside tutorials with masters students. Several mock clinical examinations were conducted in the fashion of RACP style short cases. Patients were willing to be examined and the level of clinical acumen of the trainees was considered to be high.

Education of endoscopy nursing staff was flagged as a priority by the visiting teams, and all teachers, especially the visiting nurses, contributed. A great deal of time was spent by Lula and Kathy providing high quality advice and teaching to all endoscopy nurses. Topics included enteral feeding (supplemented with a visit to a patient with PEG tube) and non-surgical management of GI bleeding, hand hygiene and peri-operative patient management including recovery and handover, intra-procedural training including sclerotherapy, dilation, polypectomy, oesophageal banding and associated issues in infection control and occupational health and safety.

#### Endoscopy:

Endoscopy sessions were performed daily, commencing at 0830 and running until mid to late afternoon. Each session saw 7-8 patients undergo either gastroscopy or colonoscopy. There was a wide variety of cases with similar indications as seen within Australia. These included investigation of dyspepsia or abdominal pain, gastrointestinal bleeding, suspected inflammatory bowel disease or chronic diarrhoea for investigation, past colonic polyps (relatively rare as compared to Australia) and cirrhosis/variceal surveillance.

Patients were clerked on arrival by nursing staff and initially recovered in the waiting area. Peri-procedural and handover protocol, including specific post-operative instructions and patients vital signs, were further developed and successfully implemented by Lula and Kathy. A system for endoscope tracking was developed and implemented, and is available on the endoscopy worksheet. Hand hygiene, endoscope and instrument sterilisation, a working trolley for endoscopy nursing staff, and a daily and weekly checklist for environmental and equipment cleaning were implemented. A specialised box for GI bleeding emergencies was established and contained items such as sclerotherapy needles, banding devices, adrenaline and resolution clips. A checklist for inventory of this box, as well as basic inventory was established.

A definite increase in endoscopy numbers was noted with most lists booked with 6-8 patients. During the program, 183 endoscopies were performed (108 gastroscopy and 75 colonoscopy), with some candidates performing colonoscopy to reach the caecum. Naturally, there is variability in experience in Fiji with several registrars in the very early stage of ability through to accomplished endoscopists who required minimal teaching. Overall, it was felt that colonoscopy is more difficult in Fiji than in Australia due to a combination of factors including level of patient sedation, and (probable) longer colon length. Capsule endoscopy was performed in two patients with suspected gastrointestinal bleeding. A wide range of pathology was seen; upper GI cases of interest included an elderly patient with portal hypertension and a massive, bleeding gastric fundus GIST, a young woman with severe malnutrition and a dysphagia with a complex extensive benign oesophageal stricture after accidental caustic ingestion. Interesting colonic cases involved a patient with an amoebic proctitis and a young man with severe perianal and colonic crohns disease. Functional GI complaints were seen more commonly in the Indian population.

There were a number of therapeutic cases performed. These included endoscopic variceal band ligation, injection and clipping of acute peptic ulcers, polypectomy, including giant gastric and standard colon polyps, oesophageal dilations using CRE balloons for peptic, complex caustic and scleroderma related benign strictures. Overall this was increased level of exposure to basic therapeutic endoscopy, and it is hoped that some of these skills can be further built on in the future. The limitation of endoscopic supplies does create an added clinical issue in deciding which patients best deserve use of the limited items. An example is whether or not to provide endoscopic variceal band ligation to all comers, or only as secondary treatment once a patient has bled. A similar decision must be discussed in relation to the use of donated PPI therapy.

Endoscopies were recorded using reporting software which was updated during the visit. A glitch in the previous version had created a loss of data, and it is hope that the newer version will avert this. A stand alone PC is available for use in endoscopy (with reporting and audit software), and has a dedicated printer. No internet facility is available in the unit. A video

teaching module on gastroscopy and colonoscopy was donated and left on the computer in the endoscopy room (from Cotton and Williams' textbook, Practical Gastrointestinal Endoscopy).

Helicobacter Pylori testing is well underway in the unit, with batch preparation of test kits as described in the 2009 report. Kits are kept at near zero degree temperatures after preparation and thawed on the day of use. For quality control purposes, kits were compared to donated CLO-tests and slide based rapid urease test. A good correlation was made after interrogation of the reading time frame of the prepared kit, and it was re-enforced that endoscopy staff were required to 'read' the kit preparation during the session, rather than the following day (which gave false results). Attention was directed at proper preparation and discarding of poorly prepared or thawed test kits for more accurate results.

A wide range of endoscopy supplies is currently available including re-useable biopsy forceps, snares, clips and capsule endoscopy. The visiting teams had received donations of equipment from their own endoscopy units as well as company (Boston Scientific, Given Imaging, Cook), as well as medicines including a large supply of donated proton pump inhibitors. There is a need for supplies in variceal ligation devices, foreign body removal devices, sclerotherapy needles and dilation devices. An inventory was established to account for these devices. Unfortunately a Gold probe was not able to be used due to inadequate connections, and there is a definite need for a re-useable heater probe set for the service. Surgery is therefore used for recurrent acute GI bleeding due to PUD. Oesophageal bypass procedures are common for certain patients with benign and malignant GI obstructions. Assuming enteral stents can be obtained, there are adequate facilities available to insert these which may obviate the need for major surgery in these difficult cases

#### Additional Clinical Duties

There were daily ward rounds with different consultants and each visiting gastroenterologist took time out of endoscopy and educational components to undertake daily ward rounds with several of the medical consultants. The Fijian physicians were highly skilled in clinical acumen rather than relying on investigations and endured a very large patient load with great endeavour and enthusiasm. Visiting specialist encountered an excellent array of general medicine including infectious diseases (typhoid fever, rheumatic fever, TB, viral hepatitis, hookworm), cardiac failure and coronary artery disease (particularly common in young adult male Indians), haematological malignancies, chronic liver disease and cerebrovascular disease.

A pathology meeting was conducted 8-9am each Thursday, and a radiology meeting was held each Friday. Cases pertinent to gastroenterology and general medicine were presented. Specialist consultations were provided in the areas of gastroenterology whilst on ward rounds, during endoscopy sessions, and during breaks where required. It was a remarkable experience to practice medicine in such a different environment where one does not have ease of access to equipment, investigations and anaesthetic support.

#### Feedback

Feedback from the trainees and the training team is an integral part for the successful future development of this program. A formal questionnaire was circulated to the trainees at the

completion of the training program. The majority of feedback indicated the training to be a very valuable and rewarding experience. Below is a summary of the outcomes of the questionnaire in 2010.

1. Your overall impression of the program was:

*Fantastic – 73%, Very good 27%*

Comments:

- 1. It was Fantastic*
- 2. The visiting gastro team was just fantastic.*
- 3. Very helpful for all levels of trainees*
- 4. Need continuing visits to maintain a good standard of endoscopy amongst our trainees*
- 5. The unit seems to be getting broadened. I have learnt more therapeutic side of the procedures which is very interesting. We can save a lot of money and time endoscopically rather than taking patients to theater especially with an acutely bleeding ulcer, varices or stricture.*
- 6. As it was my first attachment to the unit, I found it very interesting. I really learn a lot from the visiting team and from the endoscopy staff on how to wash the scope and assist doctors in all procedures.*

2. Please list the particular aspects you found valuable.

- 1. Helpful program to upskill local endoscopists*
- 2. Hands on training for colonoscopy.*
- 3. As a surgeon, my purpose of coming across to CWMH was to improve my colonoscopy skills.*
- 4. This was my first time to be exposed to endoscopy at this level. It was with great honour and privilege that I was able to see at first hand procedures being performed by great endoscopist. The knowledge passed on during the month of training was quite invaluable to me. I realize now how much impact does interventional endoscopy has. I would very much like to pursue and build on the little I have learned during this session and I can't wait for next year. As I wait for next year, I will continue to refine my skills in basic endoscopy and hopefully be experienced enough to perform some of the interventional scopes.*
- 5. I have been doing diagnostic endoscopy for several years and lacked interventional skills. After this year's training, I learned to do variceal banding, esophageal balloon dilation, and polypectomy. I watched how adrenaline injection and clipping is done to control bleeding.*

*I found all the members of the visiting gastro team fantastic and very helpful. However, I would like to mention Dr. Chris Leung in particular for his fantastic job in teaching and guiding us patiently whilst I learned those interventional endoscopic skills. His personality and mannerism gave us the confidence to carry out these special newly attained skills.*

*Though I have done just a handful of colonoscopies before, I was never confident in doing it alone and used to dread doing one. Thanks to this year's training, I am doing colonoscopies on my own and reaching the terminal ileum. I have also done several esophageal bandings, couple of esophageal dilations, a few polypectomies*

*and adrenaline injections on own. Our local nurses have gained a lot too. They are more confident and skillful and that definitely make our endoscopies a success.*

- 6. The sessions were well organized and there were no overbooking of cases like the previous year. I had more opportunities to put my hands on colonoscopy procedures.*
- 7. Therapeutic endoscopy training, Colonoscopy training, informal case discussions and formal presentations*
- 8. Keep the program ongoing as we train more nurses from Lautoka each year and trained nurses are responsible to the much improved endoscopy services we now offer in Lautoka Hospital.*
- 9. Maneuvering techniques and positioning of patients during difficult cases.*
- 10. Interventional endoscopies.*
- 11. Teaching sessions on GI pathologies.*
- 12. More manpower on board which make the turn over easier.*
- 13. Learn how to setup scopes in procedure room, applying abdominal pressures during colonoscopies. This was my first experience and I found it very challenging. I learned a lot from the Endoscopy Nursing Trainers.*

### *3. I want the following suggestions for improvement of the program.*

*Comment:*

- 1. I wish for longer training sessions.*
- 2. To change the timetable as it clashes with our end of block exams for our medical school. Move the training month to mid-August to September.*
- 3. We were fortunate to receive some gastro consumables and drugs from your donations.\*
- 4. Two gastroenterologist to come as the current program requires one to teach endoscopy and one with clinical teaching.*
- 5. Some doctors / nurses to come for subsequent visits as they know the issues/ situation here.*
- 6. Improved communications/ coordination so that special clinics for different gastroenterological cases can be organized.*
- 7. ERCP work would be novel for us and yet very relevant.*
- 8. Need recovery trolley for proper recovery of patients.*
- 9. More registrars to be attached with the team.*
- 10. We should have sufficient cases to be booked and allow more time to the nurses to have lectures and sessions with the Nursing Trainers.*

### Conclusion

The trip provided a valuable self-learning experience. Dr Joji Malani was instrumental in making the visit such a positive one due to his passion, commitment and enthusiasm.

The group uniformly agreed that a number of issues require future discussion.

1. Equipment supply: There is an ongoing need for equipment donations to Fiji to support the endoscopy practice. We should give consideration to doing this as an ongoing exercise rather than just at the time of the four week block. Arrangements for donated goods need to occur in advance to allow for this to be endorsed by high level management of potential sponsor companies and service providers. Lastly, the service would benefit from the donation of a heater probe and this has been requested from the WGO as well as industry.
2. Unit nurse co-ordination : Ongoing GENCA support is crucial to further Fijian nurse development (including education provision covering the basic principles in OH&S, Infection Control, endotherapy, importance and relevance of peri-procedural assessments for patient safety) as well as unit management including development and implementation of systems to ensure safety and communication in the peri-operative endoscopy period, systems organisation for equipment such as the reprocessing machinery, endoscopy processors, portable suction stations, anaesthetic equipment and diathermy. Options include increased regular visits from GENCA and perhaps their corresponding New Zealand counterparts, or sponsorship to provide an extended length of training time spent in a high volume Australian centre.
3. Equipment use: Whilst the education programme in endoscopy providence training in basic therapeutic techniques which can be used to safely improve patient clinical outcomes (such as treatments towards peptic ulcers and variceal bleeding), due to the limitation of supplies, some guidance is needed to facilitate best use of the available stock. This may also extend to encompass the best outcome use of available PPI donations.
4. Specialist endoscopist development: Whilst extra sessions during the year may assist by maintaining a standard of education and training, an alternative option may be to invite a senior Fijian specialist and a nurse manager to train in a high volume centre within Australia or New Zealand to develop 'expert' level competence. This has been flagged as an area of discussion previously and the group concurs with previous recommendations. The team repeated the discussions that were commenced in 2008 in regards to optimal numbers of endoscopy candidates and optimal turnover per lists. It is clear that patient numbers have been increased per list, however, many candidates were exposed to training during the month, rather than a few 'selected'.
5. H.pylori testing and treatment: now that an inexpensive and easily prepared rapid urease test is available, a method of quality control of the test is required on a regular basis. Furthermore, a co-written document requesting PPI based on the Asia Pacific recommendations for therapy should be formulated in order to assist the medical and surgical patients obtained access to PPI based, and hospital initiated eradication therapy. A clinical audit is being conducted and may help to serve as a future surrogate marker of prevalence of disease.

**Our current views on the program echo earlier reports:**

1. It is agreed both from the Fiji School of Medicine and the Australian gastroenterologists that the program should continue. It is considered essential that gastroenterologists from Australia who subsequently volunteer for this program will need to be well aware of the clinical needs and constraints of the medical services in Fiji. High-level sub specialty technical skills as applied to a developed country are at present of little value.

2. Engagement of the Gastroenterological Society of Australia in the program (as distinct from its members privately) can only benefit both organizations. With the direct interest now evident from AusAID, GESA's involvement is both logical and indeed preferable, though other intermediaries (with AusAID) can be adopted. The Royal Australian College of Surgeons has expressed a supporting interest in this regard.
3. Teaching on the FSM postgraduate course should be retained as a core component of the program. The Australian team may play a greater role in helping to develop and expand the gastroenterology part of the curriculum. Team members are generally willing to donate their teaching material.
4. This year the visit overlapped again with the annual scientific meeting of the Fiji Medical Association and one of us (CL) had a role as an invited international speaker. It would be useful if future visits took place at the same time each year for a visiting GESA member to continue this role.
5. The consultants who perform endoscopy greatly benefited from the four-week period of intensive teaching and training. This benefit related to both technical training and learning about the clinical application of endoscopy. Over the brief time of the visit it was apparent that major improvements were made in technical and cognitive skills, including the range of interventional endoscopy skills.
6. Training of postgraduate doctors should be limited to a small group who are likely to gain enough experience to become competent.

**7. Proposed strategies to help develop endoscopic expertise:**

One of the major impediments to the development of endoscopic skills is that insufficient numbers of endoscopies are being performed at CWMH to allow trainees to build their skills. This is aggravated by the relatively large number of specialist endoscopists and the tendency to try to have most medical and surgical trainees perform a few endoscopies. The net result is that neither the specialists nor the trainees have the density of experience necessary to develop their skills.

We would favour endoscopy being limited to say 4 specialists (2 medical and 2 surgical, who each do one or preferably two lists each per week.

Trainees in endoscopy should be selected for their interest in endoscopy, the needs in their likely final location as a consultant and their potential skill development. The numbers of endoscopy trainees should be limited to that which allows each to do a minimum of 2 lists per week for at least a year.

As the clinical need for endoscopy at the moment is particularly for gastroscopy, this should be the initial area of effort. Colonoscopy will need to be addressed from the start, but the expectation of the trainees will need to be realistic. Training in flexible sigmoidoscopy will be of value (given the frequent need to characterise colitis). ERCP should not be considered until the clinical need has been shown to be significant and skill levels and resource capacity is at an appropriate level.

Therapeutic procedures should be limited to those which will be easy to learn, have a major clinical impact and do not require expensive consumables. Techniques for endoscopic haemostasis and oesophageal stricture dilatation should be the priority.

The ongoing use of the donated computerized reporting system is encouraged to ensure quality and uniformity of reporting and as an ongoing audit tool.

To address the unmet clinical demand for endoscopy and provide the density of experience needed to achieve fairly rapid development of endoscopy skills, it is essential that the management of the endoscopy unit be such that at least 8 procedures (say 6 gastroscopies and 2 colonoscopies) are undertaken on each list. This will require quite significant changes to current work practices. Management of the lists to ensure that the current high rate of 'no shows' is minimised.

A program is developed to ensure that trainees can appropriately utilise endoscopy clinically and become aware of what is required to provide safe, hygienic and effective endoscopy. This should ensure the trainees have a detailed understanding of:

- a. The conditions where endoscopy would be appropriate
- b. The other investigations that are complementary
- c. Infection control and equipment reprocessing
- d. Use of diathermy
- e. Sedation

#### **8. Other ways to enhance the partnership**

9. Tangible benefits should flow from the association with the World Gastroenterological Organisation. A request for help for obtaining the new endoscopic equipment has already been submitted to the WGO by Dr Malani.
10. In addition there are numerous tangible ways that GESA members can contribute. Although ad hoc donation of equipment and consumables will not establish a sustainable service it may play a short-term role in helping to establish the unit.
11. Discussions were held about potential models that may improve the resources that are directed to endoscopy services in CWMH. The hospital is severely constrained financially and models for limited charging of those able to make some contribution was suggested as a potential model for generating revenue. Such funding is crucial for ensuring a regular flow of consumables such as biopsy forceps, cleaning reagents and the like. A small number of expatriates and other insured individuals avail themselves of services at CWMH at almost no cost. It is recommended that a way of billing such patients be addressed with the funds quarantined for the unit. (This could make a significant difference. For example, the charge for one gastroscopy at the private hospital in Fiji exceeds the projected annual cost for all biopsy forceps at CWMH for one year)
12. The establishment of a gastroenterology and endoscopy resource centre at CWMH may be a worthwhile goal. There is good internet access to information, endoscopy atlases and data but apparently relatively little utilisation of this, partly because of the location of these resources. A number of hardcopy journals and textbooks as well as core articles were left by the team in the hope that these may form the nucleus of a small learning centre.
13. Many GESA members have indicated a willingness to participate in this initiative by volunteering time for training. It is likely that there would be no difficulty in filling all

the requirements the FSM identified as being needed. So that this is a true volunteer project, it is considered important that the GESA volunteers self fund their accommodation and living costs in Fiji. This is not seen as a major issue.

14. Notwithstanding the role of the WGO in equipment provision, GESA and GESA members may be able to negotiate with our industry partners in Australia to support the maintenance of a reliable supply of endoscopes and other equipment to CWM Hospital.
15. The program should continue to help identify diagnostic and treatment pathways that can be taught and implemented at a cost affordable to Fiji. The most obvious example would be the development of standardized diagnostic and treatment pathways for *H. pylori* associated ulcer disease that has been partially implemented at the training facility
16. Opportunities may arise to expand the program through GESA member contacts with other organizations. For example TC has good contacts with AusAid and PK has had overtures from an Infectious Diseases Dept to potentially participate in a parallel program. The latter may be very helpful clinically as it is apparent that microbiological and histological diagnostic services struggle to meet clinical needs at CWMH. There are serious manpower and equipment constraints in the laboratories. An example was in cases of colitis of indeterminate nature that were thought likely to be amoebic colitis but where diagnostic tests were negative. In one case histology slides brought back to Australia clearly demonstrated amoebiasis. It is apparent that provision of training and support for consumables in the laboratory has the potential to greatly improve service provision.

Visiting clinicians need to encourage their colleagues to volunteer their time or equipment to the initiative in Fiji as an experience that is mutually beneficial. This would ensure a greater commitment to training of Fijian specialists in endoscopy.