



## Report on the mission to Silay City, Negros Occidental, Philippines, March 3-11, 2019

to Teresita L. Jalandoni District Hospital, Chief Maritel Ledesma, MD, Host: Governor, Province of Negros Occidental, Alfredo G. Maranon, Jr. and Silay City Mayor Mark Andrew Golez, Mission leaders: Christopher Klem, MD and Julie Gamboa, RN, Local Mission Coordinator: Gina Regalado, St. Scholastica's Bacolod Alumnae Foundation, Inc.



Multiple missions have been held in Silay City. The most recent was held in March 2018.

**1. Volunteer staff:** 60 total staff were involved in direct care and directly associated with AMM: these included 58 from the USA and 2 from within the Philippines (exclusive of local lay support staff). All volunteers paid their own travel and housing expenses. There were 14 new\* volunteers.

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### A. Surgical / medical volunteers:

#### • USA Physicians (17):

**Anesthesia (7):** Drs. Harlan Klein, Jay Tokeshi\*, Alex Buls, Sunny Ohman (CRNA, WA), Felix Molas (CRNA, FL, Philippines License), Genevieve Moas ((CRNA, FL, Philippines License)

**General Surgery (3):** Drs. Ray Shapiro (NM), Jennifer Salotto, and Chip Demarest\* (NM)

**Head & Neck Surgery (1):** Dr. Christopher Klem

**Plastic Surgery (1):** Dr. Jon Fegurgur (Guam)

**Gynecology (4):** Drs. Anita York (CA), Ben DeLisa, Tracy Levine (CT), Terry McCaskill (NV).

**Gynecology PGY- 4 Residents (2):** Sara Cryer\* (CT) and Jenine Boileau\* (CT)

• **USA Dentists (9):** Drs. Frank Kihara, Dean Sueda, Steve Ertell, Lynn Fujimoto, Jonathan Okabe, Natalie Chien\*, Rizza Bejasa\*, Rick Freeman\* (OK), Courtney Miyamoto\*

- **USA Nursing Staff (16):**
    - Mission Co-Leader (1):** Julie Gamboa
    - OR staff (4):** Janette Wolff, June Belvis, Jenny Empaynado, Gina Shin,
    - Recovery Room staff (4):** JoAnna Glaser, Kaitlyn Bernat, Lauren Lipps, Alicia Roberson
    - Ward staff (2):** Suerte Dureg, Allison Sakoda
    - Nurse Practitioner (1):** Malia Woolsey
    - Dental Nurses (3):** Kauai Pelekane, Shiho Hamano, Anita Bahl
  - **Lay assistants (11):** Glen Bailey (magician), Lisa Cohen (statistician), Russ Martin (medical technician), Marvin Burrows (medical technician), Julie Klein, Joel Frazier\*, Denise Freeman\*, Sita Rhupakheti, Christine Caparas\*, Mary Tom, Lex Caparas (surgical tech)
  - **Students (5):** Grace Klein (HS), Jordan Klein (college, CA), Aaron Shim\* (college, WA), Elysia Belvis\* (HS), Stephen Graves\* (med school, IL)
  - **Philippines Staff (2):**
    - Drs. Melissa Young (anesthesia) and Robert Sy (general surgery)
  - **Local organizers in Silay City:** Gina Regalado, member of St. Scholastica's Bacolod Alumnae Foundation Inc. (SSBAFI), was the local Mission Coordinator. She and members and associates of SSBAFI arranged patient recruiting-registration, translation, prescreening, scheduling by the Hospital, and transportation and meals for mission members. More than 20 local volunteer nurses assisted us in the OR and wards.
- B. General mission supply packing was on January 27<sup>th</sup>, 2019 at Julie Gamboa's house. Fifteen volunteers assisted with packing mission supplies. The Dental team packed their supplies at Dean Sueda's house on February 17<sup>th</sup>, 2019.
- C. Orientation meeting took place at Dr Harlan Klein's house in Kaneohe on February 10<sup>th</sup>, 2019. Approximately 25 volunteers were present for the meeting. Mission leaders Christopher Klem and Julie Gamboa led the meeting and explained travel and mission expectations. Lunch and a question and answer session were provided. Volunteers collected boxes for transport to the airport and to Silay at the end of the meeting.

## 2. Housing-Logistic issues:

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- A. Travel agent Theresa Sim of Emerson Travel, 1400 Kapiolani Blvd, C-26, Honolulu, HI (808) 597-1818, [emersonsvl@aol.com](mailto:emersonsvl@aol.com) again arranged travel for many team members. Theresa and her team were very helpful in making complex arrangements for travel. Emerson Travel continues to be an excellent resource for travel on PAL.
- B. Transportation to / from the Bacolod airport was coordinated by the Scholastica team. As always, transportation support was outstanding. All team members were picked up and dropped off at the airport. In the future, the AMM team will continue to try to minimize the number of different team member arrivals and departures. Team members who arrive or depart at different times from the main group may be responsible for arranging their own transportation.
- C. L'Fisher Hotel was a clean and pleasant urban hotel with room rates of approximately \$65/night. This is the 2<sup>nd</sup> AMM mission to Negros to stay at this hotel. The hotel is the closest large hotel to the hospital in Bacolod and travel time was 30 minutes during rush hour. This was a significant advantage over last year when the team stayed at Sugarland Hotel, a 50-60 minute drive. The food was good and it is located within walking distance of a number of restaurants. Wi-Fi was good in the lobby, but very unreliable in rooms. The SSBAFI hosted a fellowship dinner at the end of the mission with attendance by the mission team, SSBAFI members, drivers, and local hospital staff.
- D. Team meetings were held at breakfast. The students were asked to present one 5-minute talk on a topic of their choice involving some aspect of the Philippines.
- E. The Governor, Vice-Governor, Malu Valderrama, a Scholastican volunteer, and L'Fisher Hotel provided vans for all our transportation needs.
- F. **Daily schedule:** 6:00 am breakfast at hotel, 6:30 am group meeting, 7:00 am departure for hospital (30 minute van ride). 7:30-8:00 am ward rounds, 8:30 am surgery begins, next day's patients seen in clinic after 11:00 am. Days ended when last scheduled case was done, ranging between 5:00-6:00 pm except on Friday when we closed for packing at 2:00 pm.
- G. Approximately 20 boxes of surplus supplies were left in Bacolod for use in future missions.

## 3. Equipment and supplies:

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- A. A total of 22 supply boxes weighing 50 lbs each accompanied 23 volunteers leaving from Honolulu on PAL. We were met by the Governor's assistant, Eddie Alarcon, in Manila, who assisted us in getting through customs. The main team met resistance from Philippines customs officials in Manila while transferring equipment boxes. Customs requested both the Deed of Donation, which we had, as well as a letter from the Philippines FDA, which we did not have. Customs opened 6-8 boxes, including all with medications. A Philippines DEA agent went through all of the medications and utilized a hand-held analyzer on numerous medication vials. The issue of FDA paperwork must be addressed for future missions. It may be beneficial to ship boxes ahead of time to Bacolod to avoid potential problems at the airport.
- B. We brought 4 cautery units, the SSBAFI arranged for loans of 2 cautery units from surrounding hospitals, and there were 2 functioning units at the hospital. Two of the cauteries units were transported from California by Russ Martin and Lisa Cohen; these had been recently used on Dr. Margie Fine's Aloha Medical Mission to Guatemala. There were 6 functional suction machines in the operating rooms, 1 per table.
- C. Anesthesia personnel brought their own basic monitors (BP cuffs, pulse oximeters), equipment (laryngoscopes), and some supplies (various medications). AMM provided inhalants (sevoflurane, isoflurane), morphine, propofol, midazolam, fentanyl, ET/LMA tubes, spinal needles. The hospital had 3 functioning anesthesia machines and arranged to borrow 1 from Cadiz Hospital. We utilized a portable anesthesia machine previously purchased by St. Scholastica Bacolod Alumnae Foundation Inc. (SSBAFI) and also utilized 1 of 2 brought by Drs. Robert Sy and Melissa Young. There was a spare portable anesthesia machine throughout the mission that was not needed. Three "formal" anesthesia monitors were utilized: 1 each from Silay, Cadiz, and Kabankalan. These monitors were typically utilized for pediatric and adult general anesthesia cases.
- D. All sterile and exam gloves were donated by various manufacturers. Supplies obtained from (primarily) Queen's donating discarded material included: anesthesia circuits, ET tubes and LMA's, cautery tips, scalpel blades, suction tips, foleys, basins, tape, skin prep. Surgical gauze-sponges and disposable gowns-drapes had been pre-wrapped in Honolulu and autoclave-sterilized on-site before use. Upon completion of the mission, 20 boxes of surplus supplies were left for future mission use.
- E. General surgery instrument sets were made in Honolulu prior to departure; these instruments are from the AMM sets. One head and neck surgery tray and 1 transvaginal hysterectomy set were borrowed from Queen's. GYN surgeons brought 4 abdominal hysterectomy instrument sets, coordinated by Ben DeLisa, the GYN team leader. They had enough instruments for 4 abdominal sets and a transvaginal set.
- F. Controlled medications (Fentanyl, Versed, Ephedrine, Morphine) were purchased by Dr. Melissa Young in Manila. AMM reimbursed her \$347 for the cost of the necessary medications.
- G. All disposable liquids were purchased from the hospital (Cidex, Betadine, alcohol, peroxide, IV solutions)
- H. Surgeons brought personal headlamps. The hospital overhead lights functioned well, though most surgeons found their personal headlamps superior.
- I. It benefited to have Marvin Burrows and Russ Martin, our fix-it men, to repair and trouble-shoot lights, anesthesia machines, dental units, electrocautery units, and monitors.



Dr. Jen Salotto and Julie Gamboa with a local Silay hospital volunteer during surgery.



The 2019 AMM Silay Dental Team



AMM volunteers with local hospital Silay OR nurses

#### 4. Hospital issues:

- A. **OR set up:** 3 large, well lit operation rooms each with 2 functioning overhead lights, were converted to hold 2 operating beds each (6 beds total: 2 GYN, 2 General Surgery, 1 Head and Neck Surgery, 1 Plastic Surgery). A portable kettle anesthesia machine previously purchased by Scholastica supplemented the 3 hospital anesthesia machines and 2 others borrowed from neighboring hospitals. All patients in the OR and recovery room had fingertip pulse oximeters. Instruments were autoclaved overnight and sterilized with Cidex during the day. Cases were scheduled to finish by 6 pm each day.
- B. Dr. Robert Sy from Manila, along with other local general surgeons, conducted the outpatient-minor surgery clinic.

**5. Cases:**

- A. **Outpatient surgeries: 208 cases** (excision of skin lesions) done by Dr. Robert Sy and other local general surgeons.
- B. **Dental cases: total of 675 patients (1171 extractions, 396 fillings, 13 periodontal procedures) treated by nine AMM dentists. Total of 980 patients (1871 extractions) treated by 3 Filipino dentists.**
  - a. The Dental clinic was in the Silay Civic Center, a large, well-lit, air-conditioned space. The dental team, under Dr. Sueda’s leadership, worked closely with the Scholastica team to ensure appropriate management of resources. Local volunteers and 3 AMM nurses served as dental assistants, which significantly enhanced efficiency. Having 3 portable dental service units, including 1 recently purchased through funding provided by Honolulu Rotary Club, (providing suction, water, and drill), allowed the restorative (fillings) procedures. A 4<sup>th</sup> Chinese portable dental unit was broken for much of the mission, but was fixed by Marvin Burrows for use on the last day. This Chinese unit and a dental chair were again left in Negros for future missions. Despite the larger dental team and incredible increase in patients and procedures during this mission, patients continue to be turned away each day due to high demand. Future missions should plan for a team with at least 8 dentists, 4 portable dental chairs, and 4 portable dental units. This will optimize the opportunity for the AMM team to have 4 dentists performing restorative care while the remaining 4 AMM and local dentists perform extractions.

Dental stats	2019	2018	2017	2016
<b>Patients treated</b>	<b>1655</b>	<b>521</b>	<b>722</b>	<b>754</b>
<b>Procedures</b>	<b>3397</b>	<b>1164</b>	<b>1306</b>	<b>1034</b>
Extractions	2988	685	963	941
Fillings	396	479	334	93
Periodontal	13	0	0	0
Root canals	0	0	9	0

All fillings were done by AMM dentists on the three portable dental units.



The AMM general surgery team: Drs. Ray Shapiro, Chip, Demarest, and Jen Salotto.



Drs. Chris Klem and Jay Tokeshi, along with local nurse Xenia Robles in surgery.

- C. **Inpatient surgeries:** 102 patients (vs. 101 in 2018) underwent a total of 113 major procedures: a) 63 female = 62%. b) The age range was 6 mos-77, # pediatric cases: 21 ( $\leq 15$  yrs old) = 21%. c) Four patients required a total of 7 units of blood products.

- GYN: 27 cases (vs. 33 in 2018) of uterine myomas, endometriosis, Bartholin’s cysts, and ovarian cysts/tumors. Two prolapse cases were seen this year (vs. 2 in 2018).

15	Trans-abdominal hysterectomies, all with oophorectomies (vs. 25 in 2018)
1	Trans-vaginal hysterectomy
2	Uterine prolapse repairs
9	Pelvic mass / oophorectomy for various diagnoses

- GENERAL SURGERY / HEAD & NECK / PLASTICS: 86 cases (vs. 64 cases in 2018)

15	pediatric inguinal hernia repairs, (vs. 17 in 2018)
11	adult inguinal hernia repairs (vs. 10 in 2018), 5 with mesh repairs

1	hemorrhoidectomies, (vs. 3 in 2018)
9	cholecystectomies, (vs. 3 in 2018)
13	various: 1 burn contracture, 1 mastectomy, 1 forearm mass, 1 eyelid mass, 1 neck exploration, 5 hydrocele, 1 circumcision
17	hemithyroidectomies, (vs. 7 in 2018)
8	Salivary gland tumor excisions (vs. 7 in 2018)
6	Cleft lip repairs
5	Cleft palate repairs
1	Congenital neck mass excision (vs. 3 in 2017)

**6. Comments on the surgical component:**

- A. There were no major complications.
- B. Spinal anesthesia was used for all GYN cases, and all GYN cases received a prophylactic dose of Cefazolin 1g prior to surgery. It was very effective and safer to have another GYN attending to assist the primary surgeon. These were often difficult hysterectomies, with large masses and occasionally severe adhesions.
- C. Follow up of all patients was arranged by scheduled visits to local health clinics and the hospital outpatient clinic. Any complications will be cared for by the hospital's staff surgeons.
- D. There were adequate numbers of patients for each surgical specialty, though, again this year fewer GYN patients were seen compared to previous missions in Kabankalan and Cadiz, the reason for which is unknown. As the GYN cases tend to be fairly complex and challenging, continuing to have at least 2 GYN surgeons per case scrubbed-in is optimal. Future missions should continue to adjust the number and specialties of surgeons to optimize efficiency and effectiveness.
- E. The recently initiated mission practice of having equipment and medication for emergent surgery readily available (up until the last post-op/discharge rounds was done) was continued.
- F. Delegation of authority among the surgical team to include a Co-mission leader / Nursing leader (Julie Gamboa), dental (Dean Sueda), anesthesia (Harlan Klein), GYN (Ben DeLisa), OR operations (June Belvis), PACU (JoAnna Glaser), allowed individuals to manage personnel and issues in their respective areas of expertise. This model is recommended and encouraged for future missions.
- G. There were 2 occupational exposures: 1 needle stick and 1 instrument injury. In both instances, appropriate immediate actions were taken by the affected individuals, including scrubbing out and washing the injuries with copious amounts of water, soap, and betadine solution. The injuries were reported to the team leadership and labs for HIV, Hepatitis B, and Hepatitis C were drawn from each patient (paid for by AMM). Both patients were informed of the incident after awakening from anesthesia. No post-exposure medications (PEP) were available. All labs for the infectious agents were negative. For future missions, we plan to create a written protocol for all occupational exposures. We will investigate whether bringing a supply of PEP medications with the team for these instances is an option. On every mission, the safety of all team members is paramount and we believe that creating a standard occupational exposure protocol that meets the standards of our originating healthcare institutions is imperative.
- H. Two patients experienced episodes of severe bradycardia during induction of general anesthesia. Although both patients were treated appropriately and responded to medication, the point was raised during discussion of the event that there is not a defibrillator in the operating room area. We discovered that the only defibrillator is in the Emergency Department and estimated that it would take approximately 10 minutes to access it. These events led to a suggestion to bring an automated external defibrillator (AED) on future missions. AEDs can be rented for under \$100 per month, so we will research this topic further for future missions.

**7. Budget: Mission expenses**

**Total cost to AMM for mission = \$0** (\$5000 budgeted)

Income		Expenses	
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Beginning balance "Silay Mission Fund"	\$3969.04		
Donations for mission	\$5521.72	On-site expenses (dental, minor surgery supplies, advertising, drugs, oxygen, blood, shipping of extra luggage)	\$4579.25
		PRC license fees	\$833.33
<b>total income</b>	\$5521.72	<b>total expenses</b>	\$5412.58
<b>net cost to AMM (total income – total expenses)</b>	<b>+\$109.14</b>		
<b>Final Balance "Silay Mission Fund"</b>	<b>\$4078.18</b>		

• The Scholastica organization spent much of their own funds to support patient transport, lab/study costs, and screening costs. **Their total contribution to this mission totaled at least \$10,000 US.**

#### 9. Estimated in-kind contributions by the mission team:

- A. 14 physicians x (est) \$150/hr x 9 hrs/day x 6 days = **\$113,400 in physician services**
- B. 17 nurses x (est) \$80/hr x 9 hrs/day x 6 days = **\$73,440 in nursing services**
- C. 9 dentists x (est) \$125/hr x 9 hrs/day x 6 days = **\$60,750 in dental services**
- D. Equivalent value of operative services provided in US dollars: 102 major surgery cases x \$10,000 (\$1,020,000) + 3397 dental cases x \$600 (\$2,038,200) + 208 minor cases x \$500 (\$104,000) = **\$3,162,200 equivalent surgical / dental services in US dollars**
- E. Actual treatment cost per patient: \$105,000 (travel costs 56 US volunteers x \$1800 + 7 Filipino volunteers x \$600) + \$5412.58 (AMM expense) + \$10,000 (Scholastica contribution) = \$120,412.58 / 1965 pts served = **\$61.28 / patient-actual cost.**

#### 10. Acknowledgements:

- A. The success of this mission is directly related to the herculean efforts of **Gina Regalado, Jean Trebol, and the Scholastica Alumnae volunteers** who provided the coordination and on-site support of the mission. As always, their performance was superb.
- B. The hospital administrator and all the staff were exceedingly gracious and helpful. Thank you to the many local health volunteers from the town who helped us care for patients in the operating suite, recovery room, postoperative ward, and dental clinic areas.
- C. Thank you also to **Dr. Robert Sy** of Manila who continues to provide the outpatient surgical procedures program to all our Philippine missions and who assists our inpatient surgical program with logistical and monetary support.
- D. Thanks to those who contributed to the mission expenses: Glen Bailey, Chris Klem, Russ Martin, and Lisa Cohen.
- E. Because of the continued success of this mission, AMM is invited to return to Silay City next year.
- F. **Thank you to all of the AMM volunteers who contributed to the successful outcome of this mission. It was an honor and a pleasure to have worked with each and every one of you.**

Submitted April 26<sup>th</sup>, 2019 by  
Christopher Klem, mission co-leader  
Julie Gamboa, mission co-leader

