

# Department of Orthopedics

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Chair

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## General Summary

The Department of Orthopedics is committed to producing relevant, ethical, culturally-sensitive & globally competitive research. We provide an atmosphere conducive to producing high quality research to answer the needs of our patients, the country, and the rest of the world.

The department is still at the forefront of orthopedic research with a total of 19 published papers locally and internationally in 2012. A total of 26 research papers were presented in various conferences both here and abroad. One of the major highlights of the year was the publication of an Orthopedics issue of the Acta Medica Philippina, featuring research papers authored by consultants, residents, and alumni.

The Department's research program had excellent output, producing 9 completed papers and 10 new research protocols. This was accomplished by close collaboration between the residents and their consultant advisers. Furthermore, several papers received recognition in different forums: Dr. Clarissa Linda Lopez-Oliva, 1<sup>st</sup> place (Basic Science) Philippine Orthopaedic Association (POA) Residents' Research forum; Dr. Ma. Ramona B. Reyes, 1<sup>st</sup> place (Clinical) POA Residents' Research forum; Dr. Pierre M. Mella, 2<sup>nd</sup> place (Clinical) POA Residents' Research forum; Dr. Ana Cristina D. Decentecio, 1<sup>st</sup> place Asia-Pacific Musculoskeletal Meeting, Kuala Lumpur, Malaysia.

There were three successful research workshops conducted by Dr. Emmanuel P. Estrella and Dr. Tammy L. Dela Rosa on formulating a research question, research design, and identification of variables and biases. The year ended with a 2-part Annual Residents' Research Forum where completed protocols and papers were presented and judged.

The Department also has on-going researches on open fractures, brachial plexus injuries, and outcomes after limb amputation. Our goal is to increase the research competency of our staff and to publish more papers in ISI journals in the next 5 years.

## Research Papers

### Ongoing

Arada, E. C., Orillaza, N., Jr., & Caro, L.D. The role of debridement type on infection rates of open flexor tendon injuries of the hand: a retrospective cohort study.

Arocena, R., & Valdez, A. E., III. The effect of timing of debridement on the infection rate of adult patients with open fractures of the long bones: a prospective cohort study.

dela Cruz, R., & Tacata, I. A comparison between patients who underwent ray amputation versus transphalangeal amputation of the index, middle, ring or small finger using modified dash score & SF-36.

Dormitorio, B., & Azores, G. M. Risk factors for infection with the use of allograft in total hip & revision arthroplasties.

Hermida, P. A., & Dela Rosa, T. Effect of calmoseptinevs dakin's solution in the treatment of decubitus ulcer: a randomized controlled trial.

Lopez-Oliva, C. L., & Wang, E. Analysis of risk factors for infection among patients with closed fractures treated operatively in the Philippine General Hospital.

Lugue, M. K., & Lai, J. G. A prospective randomized clinical trial comparing the modified milch technique with the FARES Technique in the reduction of acute anterior shoulder dislocation.

Mella, P., & Dela Rosa, T. The diagnostic value of clinical history, provocative tests, and nerve conduction studies in carpal tunnel syndrome: a multicenter, clinical population-based, cohort study.

Reyes, M. R., Estrella, E., & Orillaza, N., Jr. Traumatic brachial plexus injury: quality of life and risk factors for quality of life outcomes based on a validated Filipino adaptation of the DASH questionnaire.

Sison, J. D., & Sumpaico, C. E. Long term versus short term IV antibiotic therapy on the post operative treatment of children with chronic osteomyelitis: a comparison of outcome.

### **Completed (unpublished)**

Alpuerto, B., II, & Pacheco, W. Retrospective study comparing outcomes of antegrade and retrograde IM nailing of the femur using SIGN nail among PGH patients.

Decenteceo, A. C., & Sumpaico, C. E. The incidence of developmental dysplasia of the hip among newborns in the Philippine General Hospital: a preliminary report.

Durban, C. M., & Ignacio, J. M. Comparison between side bending and traction radiographs in predicting post operative correction in adolescent idiopathic scoliosis.

Lat, D. P., & Javier, J. Results on management of neglected elbow dislocation using a hinged Ilizarov fixator.

Leaño, A., & Wang, E. Risk factors for giant cell tumor recurrence: a retrospective cohort study.

Panti, J. P., & Geronilla, M. Clinical outcomes of patients with isolated femoral shaft fractures treated with SIGN interlock nails versus cannulated interlock intramedullary nails.

Rejuso, C. A., & Javier, J. Functional outcomes of school-aged children with uncorrected idiopathic clubfoot treated with dillwyn-evans produce versus gradual correction with Ilizarov fixator.

Reoyan, G., & Javier, J. A comparison of results after serial manipulation and percutaneous tenotomy in idiopathic clubfoot patients between two different age groups (less than 6 mos old group and more than 6 mos old group).

Rubio, D. A., & Wang, E. Tumor endoprosthetic reconstruction for primary and malignant bone tumors of the distal femur.

Valenzuela, D. C., & Paner, N. Retrospective study comparing acetabular component sizes of total hip arthroplasty based on template done in xrays on AP, lateral view and the actual component size used among PGH patients who underwent total hip arthroplasty.

## **Published**

### **Journal Publications**

#### **National**

Arbatin, J. J., Jr., & Bundoc, R. (2012, April-June). Predictive value of lateral bending, push-prone, and fulcrum-bending radiographs in adolescent idiopathic scoliosis. *Acta Medica Philippina*, 46 (2), 48-54.

Atupan, J., & Bundoc, R. A biomechanical study on single rod spinal instrumentation system in an unstable thoracolumbar injury model: a finite element analysis. *Acta Medica Philippina*, 46 (2), 38-43.

Babaran, M., Torres, R., Garduce, V., Jr., & Geronilla, M. (2012, November). Distal radius fracture: a correlation between radiographic parameters and grip strength. *Philippine Journal of Orthopaedics*, 31(1), 43-46.

Cantiller, E. B., & Grozman, S. A. (2012, November). Mobile-Phone Short Messaging Service (SMS) as a strategy to improve compliance in orthopaedic health care appointment. *Philippine Journal of Orthopaedics*, 31(1), 14-21.

Estrella, E. (2012, April-June). Non-Microsurgical technique of fingertip replantation: a report of three cases. *Acta Medica Philippina*, 46(2), 74-77.

Estrella, E., & Lee, E. (2012, April-June). Fascial versus fascio-cutaneous pedicled sural flaps in the reconstruction of distal leg, ankle and foot soft tissue defects. *Acta Medica Philippina*, 46(2), 19-23.

Estrella, E., Lee, E., & Wang, E. (2012, April-June). Vascularized proximal fibular epiphyseal transfer for shoulder reconstruction after tumor resection. *Acta Medica Philippina*, 46(2), 64-68.

Estrella, E., Orillaza, N., Jr., & Decenteceo, A. C. (2012, April-June). Investigation on the level of evidence in researches done by orthopedic residents of the Department of Orthopedics, Philippine General Hospital over the past twenty-seven years. *Acta Medica Philippina*, 46(2), 44-47.

Ganal-Antonio, A. K., & Azores, G. M. (2012, April-June). Inter-observer and intra-observer reliability of the Harris Hip Scoring System. *Acta Medica Philippina*, 46(2), 32-37.

Geronilla, M., & Sison, J. K. (2012, April-June). Rash of motorcycle accidents: a growing national health concern. *Acta Medica Philippina*, 46(2), 5-8.

Monicit, D., & Valdez, A. E., III. (2012, April-June). Comparative analysis of the Classic Lachman's Test with the Drop Leg Lachman's Test. *Acta Medica Philippina*, 46(2), 13-18.

Noche, D. M., & Bernardo, P. (2012, November). Eggshell-derived bone graft substitute: an animal study. *Philippine Journal of Orthopaedics*, 31(1), 47-50.

Orillaza, N., Jr., & Dela Rosa, T. (2012, April-June). Reconstruction of the first metacarpal after giant cell tumor excision using non-vascularised fibular autograft, ligament reconstruction and tendon interposition arthroplasty of the carpometacarpal joint. *Acta Medica Philippina*, 46(2), 60-63.

Ranjeet, N., & Estrella, E. (2012, April-June). Distal radius fractures: relationship between radiologic parameters and functional outcome. *Acta Medica Philippina*, 46(2), 55-59.

Tabu, I., Arbatin, J. J., Jr., & Bundoc, R. (2012, April-June). Comparison of the hybrid locking plate, standard dynamic compression plate, and standard dynamic compression plate augmented with bone cement for fixation of osteoporotic humeral shaft fractures: a cadaveric biomechanical study. *Acta Medica Philippina*, 46(2), 24-31.

Wang, E., Durban, C. M., & Serrano, M. V. (2012, April-June). The prognostic value of pathologic fractures in patients with high-grade classic osteosarcoma. *Acta Medica Philippina*, 46(2), 9-12.

Wang, E., Orillaza N., Jr., Goleta-Dy, A., Fernando, G., & de Dios, A. V. (2012). Salvage chemotherapy for osteosarcoma patients with poor histologic response. *Philippine Journal of Oncology*, 12, 43-48.

### **International**

Estrella, E., & Mella, P. (2012). Double nerve transfer for elbow flexion in obstetric brachial plexus injury: a case report. *J of Plast Reconstr Aesthet Surg*. [Epub ahead of print]. PMID: 22867983.

Estrella, E., & Panti, J. P. (2012). Outcome of unstable distal radius fractures treated with open reduction and internal fixation versus external fixation. *Hand Surgery*, 17(2), 173-179.

Ranjeet, N., & Estrella, E. (2012, October). Distal radius fractures: does a radiologically acceptable reduction really change the result? *J Clin Diagn Res.*, 6(8):1388-92. doi: 0.7860/JCDR/2012/4567.2366. PMID: 23205354.

### **Book Publications**

#### **National**

Wang, E. (2012). *Skin, Soft Tissue and Bone (Section Editor/Reader) Section 9 in the Philippine Handbook of Clinical Oncology*. 3<sup>rd</sup> Edition, Philippine Society of Oncologists, Inc. Raintree Trading and Publishing, Inc.

#### **International**

Wang, E., & Pasion, E. (2012). The Philippines Section 12 in the Golden Jubilee Book of the Asia Pacific Orthopaedic Association, Philippine Chapter in the 50<sup>th</sup> APOA Anniversary Book. Hong Kong Academy of Medicine Press.

### **Presented in Conferences**

Estrella, E. Coverage of wound defects in orthopedic surgery.  
Southern Luzon POA Chapter. Lecture and Workshop on Common Hand Injuries and Coverage.  
Oct. 20, 2012. De LaSalle University, Cavite.

Estrella, E. Hand osteoarthritis: an epidemiologic perspective and new insights in pathophysiology.  
63<sup>rd</sup> Annual Congress of the Philippine Orthopedic Association. Crowne Plaza Hotel, Pasig.

November 16, 2012. Philippines.

Estrella, E. Management of peripheral nerve injuries.

30<sup>th</sup> PCMMC-UNILAB Postgraduate Course. June 22, 2012. Bayanihan Center, UNILAB, Pasig City, Philippines.

Estrella, E. Nerve transfers for the reconstruction of shoulder function in traumatic brachial plexus injuries.

Inaugural Congress of the Asia Pacific Federation of Societies for Reconstructive Microsurgery. Oct 8-9, 2012. Pan Pacific Hotel, Singapore.

Estrella, E. Rheumatoid arthritis of the hand: what every orthopedic surgeon should know.

POA Midyear Convention, April 25-27, 2012, Radisson Blu Hotel, Cebu City, Cebu, Philippines.

Estrella, E. Vascularised versus non-vascularised fibular autografts for reconstruction of long bone defects after tumor excision.

Inaugural Congress of the Asia Pacific Federation of Societies for Reconstructive Microsurgery. Oct 8-9, 2012. Pan Pacific Hotel, Singapore.

Favila, A., Jr., & Estrella, E. Shoulder reconstruction with nerve transfers for traumatic brachial plexus injuries

28<sup>th</sup> Orthopaedic Trauma Association Annual Meeting and Courses, October 3-6, 2012, Minneapolis, Minnesota, USA.

Lopez-Oliva, C. L., Montalban, A., & Montalban, C. Methicillin-Resistant staphylococcus aureus osteomyelitis prevalence at the Philippine General Hospital.

SIGN Conference, Richland, Washington, USA, September 17-18, 2012.

Presented as Poster in the 63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel. (1<sup>st</sup> Place for Basic Category)

Mella, P., & Sumpaico, C. E. A comparison of outcome of patients with idiopathic clubfoot and arthrogyposis after serial casting using the Ponseti method.

63<sup>rd</sup> POA Annual Convention, Residents' Research Forum, November 14-17, 2012, Crowne Plaza Hotel. (2<sup>nd</sup> Place)

Panti, J. P., & Estrella, E. Functional outcome of patients with closed unstable distal third radius fractures treated with external fixation versus open reduction internal fixation with plates & screws: a 5 year retrospective study.

1<sup>st</sup> AO Trauma Asia Pacific Congress, Hong Kong, May 11, 2012.

5<sup>th</sup> Philippine Orthopedic Trauma Society Annual Convention, July 21, 2012, Crowne Plaza Hotel.

Panti, J. P., Wang, E., Javier, J., Rubio, D. A., & Serrano, M. V. The Ilizarov fixator in musculoskeletal tumor resection.

9<sup>th</sup> Asia-Pacific Musculoskeletal Meeting, Kuala Lumpur, Malaysia, September 6-9, 2012.

Presented as Poster in the 63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel.

Reyes, M. R., & Estrella, E. Risk factors for developing infections of the lower extremity in diabetic Filipinos: a multicenter, hospital-based, case-control study.

SIGN Conference, Richland, Washington, USA, September 17-18, 2012.

63<sup>rd</sup> POA Annual Convention, Residents' Research Forum, November 14-17, 2012, Crowne Plaza Hotel. (1<sup>st</sup> Place)

Wang, E., et al. Extremity osteosarcoma management—experience of the University of the Philippines-Philippine General Hospital.

50<sup>th</sup> Anniversary Convention of the Asia Pacific Orthopaedic Association and the 7<sup>th</sup> Congress of

the Asia Pacific Knee Society, New Delhi, India, Oct 4-6 2012.  
Presented as Poster in the 63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel.

Wang, E., Serrano, M. V., & Marfori, M. primary aneurysmal bone cyst of the extremities – low recurrence & complication rates after curettage and burring.

9<sup>th</sup> Asia-Pacific Musculoskeletal Meeting, Kuala Lumpur, Malaysia, September 6-9, 2012.

50<sup>th</sup> Anniversary Convention of the Asia Pacific Orthopaedic Association and the 7<sup>th</sup> Congress of the Asia Pacific Knee Society, New Delhi, India, Oct 4-6 2012.

Zarate, F., & Dela Rosa, T. Diagnostic value of Erythrocyte Sedimentation Rate (ESR) and C-reactive Protein (CRP) in detecting musculoskeletal infections among adult Filipinos

5<sup>th</sup> Philippine Orthopedic Trauma Society Annual Convention, July 21, 2012, Crowne Plaza Hotel.

### **Poster Presentation**

Azores, G. M., Bernardo, P., Dormitorio, B., & Panti, J. P. Total knee arthroplasty after total patellectomy: a case report. 63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel.

Bernardo, P., & Sison, J. D. Metallosis after TKR; a case report. 63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel.

Decentecio, A. C., & Wang, E. Age as a prognostic factor in the survival of patients with high grade osteosarcoma treated in the Philippine General Hospital: a descriptive study. 9<sup>th</sup> Asia-Pacific Musculoskeletal Meeting, Kuala Lumpur, Malaysia, September 6-9, 2012. (1<sup>st</sup> Place for Pedia Category)

Panti, J. P., Bathan, L., & Reoyan, G. Lesser tuberosity subscapularis transfer for chronic posterior shoulder dislocation with reverse hill sach's lesion: a case report. 63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel.

Rubio, D. A., & Wang, E. Functional outcome of tumor endoprosthesis reconstruction in relation w/ the amount of bone & extent of soft tissue resection & failure modes for primary bone tumors of the lower extremity. 9<sup>th</sup> Asia-Pacific Musculoskeletal Meeting, Kuala Lumpur, Malaysia, September 6-9, 2012.

Rubio, D. A., Wang, E., & Panti, J. P. Embolization for primary and malignant bone and soft tissue tumors.

9<sup>th</sup> Asia-Pacific Musculoskeletal Meeting, Kuala Lumpur, Malaysia, September 6-9, 2012.

63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel.

Rubio, D. A., Wang, E., Serrano, M. V., Garin, I., & Quintos, A. J. Survivorship and failure modes of tumor endoprosthesis reconstruction. 63<sup>rd</sup> POA Annual Convention, November 14-17, 2012, Crowne Plaza Hotel.

Wang, E. Extremity osteosarcoma management-experience of the University of the Philippines-PGH. 9<sup>th</sup> Asia-Pacific Musculoskeletal Meeting, Kuala Lumpur, Malaysia, September 6-9, 2012.