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ETHIOPIAN SOCIETY OF ORTHOPEDICS & TRAUMATOLOGY

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www.ethiopianorthopaedics-esot.org

16th ANNUAL GENERAL MEETING

Scientific Conference and Medical Exhibition

Capital Hotel
Addis Ababa

ESOT 16TH ANNUAL SCIENTIFIC CONFERENCE

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Presidential Welcoming Address

Guest of honor H.E. Dr. Ayele Teshome, State Minister of Health FDRE, Distinguished guests, members and invited society representatives

Dear ESOT member surgeons, conference speakers, Residents, Med students, Sponsors and invited guests;

I am very pleased to welcome you to this year's annual General meeting. This is the 16th Annual General meeting, Scientific Conference and Medical exhibitions of Ethiopian society of Orthopedics and Traumatology (ESOT).

I am honored to stand here in front of you as the president of ESOT. I would like to give my sincere admiration to all the esteemed orthopedic surgeons who founded and maintained ESOT.

We have all been eagerly waiting and working hard for this 16th Annual General Meeting.
This year's theme is "ORTHOPEDICS MANAGEMENT OF WAR INJURIES" selected because we need to discuss, share experience and acquire knowledge of management of complex injuries that were encountered during the battle.

Conflict and Covid have put all of us at challenged position. During these difficult times, our surgeons were dedicated in helping the injured, I would like to thank you for your contribution in the name of our society. Reaching the wounded at the conflict zone was a double challenge: the numbers are large and resources are limited. Orthopedic surgeons have worked day and night to alleviate disabilities following different injuries. Despite the unimaginable stress, the heroic surgeons have performed their duties selflessly year-round.
Several Professional and humanitarian contributions of ESOT and its members were well recognized by MOH, MOD and the government of Ethiopia.

Had it not been for our all-time collaborators like SIGN, AO and ADFA it would have been extremely difficult to effectively discharge the emergency surgical responsibilities we encountered. Once again, I would like to thank our international partners in the name of ESOT.

Finally, I would like to thank and appreciate members who travelled long distance from the 10 orthopedic specialty training institutions and hospitals across our nation to make this conference colorful. I encourage you to use this opportunity to socialize, interact and establish networks.

I, hereby call upon his Excellency Dr. Ayele Teshome to deliver his welcoming speech and officially open our conference.

EDITORIAL MESSAGE

Dear Members, we gladly present the 10th volume of ESOT edition. As usual, the editorial team nominated by these assembly has been actively gathering important articles, news and orthopedic activities across our country. Special emphasis was given to the ten orthopedic specialty training institutions we have. You will find the tabular summary of extensive members list in the coming pages.

With numerous brilliant young G.Ps craving to join orthopedic residency more ortho departments opening, Sub-Specialty Programs in Orthopedics emerging and huge number of patients needing our hands, we must excel in quality research, good practice, exchange and harmony. These are better conversed when we have our reputable journal as a platform.

Based on the previous year's recommendation ESOT has now a full pledged secretariat office working routinely to execute the daily activities of the society. This year the Editorial committee is working on separately publishing scientific articles and newsletter/magazine. The opening of our new office will be of great help to realize this.

With the growing numbers of new orthopedic training centers opening, we expect increased number of quality research articles and clinical activities. The team hereby encourages submission of case reports, articles, clinical stories etc. We specially encourage residents to present their thesis work and projects at our AGM. Our team is happy and ready to assist them in publications.

This volume will be uploaded on our website, please visit the website and share the publication to the wider audience.
Peace and Blessings!
Biruk and Mahder

Establishment of
The Ethiopian Society of Orthopedics And Traumatology (ESOT)

Tezera Chaka MD, FCS(ECSA)
Associate Professor of Orthopedic Surgery
School of Medicine
Addis Ababa University

With the beginning of 1995 G.C. the consensus that was made among all Orthopedic Surgeons was to be organized under the Surgical Society of Ethiopia (SSE) which was believed as it should be serve as umbrella organization for all surgical specialties until such time that each surgical specialty associations established. Thereafter SSE would be transformed to "College of Surgeons" and will mainly focus on accreditation, certification, standardization etc of the profession. (Now it is high time to establish the "College of Surgeons" of the country due to the current flourishing of Surgical Trainings at the different Universities in order to assess, standardize, accredit, etc of their activities.)

Subsequently as the department of orthopedic surgery started to produce graduates and also with arrival of specialists graduated abroad the number of orthopedic surgeons started to grow up. In 2003 an interested group met in the Tikur Anbessa hospital surgical department conference hall for a brain storming discussion on how to establish a society. At the end of the meeting a steering committee was formed with the main task to draft the constitution and to accomplish the legalization process.

In May, 2003 the first meeting was conducted at Semien Hotel. The drafted constitution, the name- Ethiopian Society of Orthopedics and Traumatology (ESOT) –and the Emblem of the society were approved and executive members were elected.

On the 2nd of January 2004 the society has been officially registered by the Ministry of Justice and following in 2004 in the presence of officials from the Ministry of Health, delegates from sister societies and associations and other invited guests from inside and out side of the country an inaugural ceremony was held at the Ghion Hotel. There has been also a guest lecture as well as scientific paper presentations. After the second annual meeting and scientific conference which was held at Global Hotel Thursday 30th March 2006 with a pre-conference workshop on Club feet organized by the Society, Cure International and World Orthopedics Concern, during the subsequent years due to unforeseen circumstances (internal and external) the activity has tremendously declined.

In 2008 extra-ordinary meeting was called and new executive committee was elected which led the society to the resurgence of its activity. There after to date there were regular annual meetings and scientific conferences with panel discussions on important and timely issues and Workshops. Starting 2010 the society has gone further to start publishing a Scientific Journal of its own and has created its web-site.

The 2012 AGM and Scientific Conference have been colorfully celebrated at Hilton Hotel in the presence of His Excellency Ato Amin Abdulkadir Minister of Culture and Tourism with the theme "Medical Tourism & Sport Injuries". At this conference members has been honored with a recognition awards for their contribution to the profession at different categories. The first Operative AO course for all Orthopedic Surgeons in Ethiopia & their Nurses was successfully conducted in Dec. 2012 in Churchill Hotel. Both surgeons and residents benefited a lot. ESOT is growing tremendously. Therefore to uphold this noble endeavor, it is the duty of every member to actively engage our self to the fulfillment of the vision, mission and goals of the society.

List of Ethiopian,Graduate ESOT **Founding Members**

1991
Dr. Ahmed Taha Makki (Yemani Citizen)
Dr. Eskinder Afework
Dr. Lakew W/ Amanual

1993
Dr. Tawfik Abdulahi
Dr. Temesgen Fitru
Dr. Tezera Chaka
Dr. Worku Mekonnen
Dr. Wondimu Wolde

1994
Dr. Teshome Worku
Dr. Woubalem Zewdie

1996
Dr. Legesse Yigzaw
Dr. Solomon E/ Yonas

1997
Dr. Dereje Tekalign
Dr. Mesfin H/ Mariam
Dr. Tadesse Alemayehu

1998
Dr. Asfaw Ayele
Dr. Dagne Feleke

2000
Dr. Hailu Shewa-amare

2001- Dr. Gizachew Nigussie

2002
Dr. Birhanu Beyer
Dr. Wondaferaw Wondimu

2003
Dr. Biruk Zewdie
Dr. Genanew Admasu
Dr. Hailu Legesse

2004 - Dr .Manyazewl Dessie

2005 - Dr. Kinfe Araya
Dr. Zelalem Tamirat

2006 - Dr. Biruk Lambisso
Dr. Elias Ahmed
Dr. Daniel Ayalkibet
Dr. Kagnew Wubishet

2007 - Dr. Birhanu Ayana
Dr. Tesfaye Lema

2008 - Dr. Abebaw F/ Sillasie
Dr. Dereje Negash
Dr. Fekadu Teshome
Dr. Fisseha Bekele
Dr. Yiheyis Feleke

2009
Dr. Andargachew Workineh
Dr. Demissie W/ Kidan
Dr. Mekonnen Wordofa

(All Founding members are graduates of AAU)

Members Trained in Orthopaedics Abroad

1. Dr. Bahiru Bezabih
2. Dr. Berhe Gebreselassie
3. Dr. Duane Anderson
4. Dr. Laurence Wicks
5. Dr. Lishan Assefa
6. Dr. Mesfin Etsub
7. Dr. Tewodros Tilahun
8. Dr. Tim Nunn
9. Dr. Zegene Taye
10. Dr. Guetahoun Yetbarek
11. Dr. Mengistu
12. Dr. Amare Tessema(Traumatologist)

Graduates, continued
Addis Ababa University (AAU)

2010
1. Dr. Neguissie Seifu
2. Dr. Selamu Dessalegn
3. Dr. Solomon Awoke

2011
1. Dr. Tilahun Desta

2012
1. Dr. Daniel Teferi

2013
1. Dr. Alemayew Silassie
2. Dr. Bezu Chemeda
3. Dr. Mohammed Adem

2014
1. Dr. Nesredin Yusuf
2. Dr. Nigussie Hailu
3. Dr. Samuel Hailu
4. Dr. Tadesse Shimelis
5. Dr. Teshome Mosissa
6. Dr. Wondwossen Tekola
7. Dr. Sisay Birhanu

2015
1. Dr. Ebrahim Ahmed
2. Dr. Geletaw Tessema
3. Dr. Tekalign Tsegaye
4. Dr. Sham Abrahim
5. Dr. Worku Belay
6. Dr. Solomon Goshu

2016
1. Dr. Ephrem G/Hana
2. Dr. Esubalew Abebe
3. Dr. Habtamu Bayissa
4. Dr. Mamo Deksisa
5. Dr. Tewodros Daba
6. Dr. Tinsae H/Michael
7. Dr. Yoseph Zekarias
8. Dr. Zerihun Tamirat

2017
1. Dr. Addissu Chala
2. Dr. Biruh Wubishet
3. Dr. Leul Merid
4. Dr. Yared Solomon
5. Dr. Milkyas Tsehaye
6. Dr. Getnet Asnake

2018
1. Dr. Abduhrehaman Ahmed
2. Dr. Abiy Worku Haile
3. Dr. Ananya Kassahun Admassu
4. Dr. Ermias Gizaw H/Meskel
5. Dr. Eskinder Kebede Tadesse
6. Dr. Getayie Temesgen Kebede
7. Dr. Zeynu Zuber
8. Dr. Mahder Eshete Yilma
9. Dr. Melesse Gardie Belete
10. Dr. Misgana Temesgen Workneh
11. Dr. Menewer Yirga Ahmed
12. Dr. Mohammed Issa Dawod
13. Dr. Nardos Worku Ketema
14. Dr. Samson Tule Sadiko
15. Dr. Seid Mohammed Yasin
16. Dr. Sintayehu Bussa Teresa
17. Dr. Sisay Belete Berga
18. Dr. Tadesse Esayas Wae
19. Dr. Yebchaye Wondafrash Gemeda

2019
1. Dr.Abdirashid Ismael
2. Dr.Ahmed Seid
3. Dr.Ayele G/Selassie
4. Dr.Bahru Atnafu
5. Dr Baru Legesse
6. Dr.Berhane Kassa
7. Dr. Biniyam Teshome
8. Dr. Birhanu Ayinetaw
9. Dr. Bruh Keflae
10. Dr. Chernet Leka
11. Dr. Chol William
12. Dr. Fasil Nigusse
13. Dr. Habtamu Tamrat
14. Dr. Helawi Tewabe
15. Dr Hiwot Hailu
16. Dr. Mahamed Areis
17. Dr. Mengistu G/Yohanes
18. Dr. Michael Habtu
19. Dr. Moa Chali
20. Dr. Mohammed Shikur
21. Dr. Mulusew Tibebu
22. Dr. Oumer Seid
23. Dr. Tewodros Asegie
24. Dr. Thomas Melese
25. Dr. Tofik Kedir
26. Dr. Tsega Yilma

2020
1. Dr. Admasu Tibelt
2. Dr. Ahmed Abdusemed
3. Dr. Eyuael Ambaye
4. Dr. Fikir Tesfaw
5. Dr. Fitsum Lakew
6. Dr. Fre Alemseged
7. Dr. Getachew Berhe
8. Dr. Getahun G/Egziabher
9. Dr. Gulilat Zerihun
10. Dr. Khalid Zeki
11. Dr. Mariamawit Baye
12. Dr. Seyoum Berihun
13. Dr. Silamlak Sisay
14. Dr. Tegenu Dinku
15. Dr. Teshale Ayana
16. Dr. Tewodros Taye
17. Dr.Tsegaye Mamo
18. Dr. Yonas Amiga
19. Dr. Yazachew Yimenu
20. Dr. Zenaye Wude
21. Dr. Teshome Tena
22. Dr Dejene Feyisa

2021
1. Dr. Moges Tessema
2. Dr. Habtamu Akalu
3. Dr. Melkamu Alemu
4. Dr. Kaleab Tesfaye
5. Dr. Yemane G/Yohannes
6. Dr. Abiy Birhanu
7. Dr. Naol Worku
8. Dr. Samuel Tesfaye
9. Dr. Robel Sirak
10. Dr. Tezera Tadesse

11. Dr. Aclaf Aseged
12. Dr. Belete Hubena
13. Dr. Jiregna Fayera
14. Dr. Henok Dagnachew
15.Dr. Daniel Banksira
16.Dr. Gemechis Amano
17. Dr. Matiyas Seid
18. Dr. Senay Mekonen
19. Dr. Fantahun Solomon
20. Dr. Abdo Dames

2022

1. Dr. Abdulwasi Jemal
2. Dr.Abel Jemberu
3. Dr.Addisu Deribe
4. Dr.Amanuel leulseged
5. Dr.Asna Bersisa
6. Dr.Barnabas Wondimu
7. Dr.Beakl Bogale
8. Dr.Elleni Atnafu
9. Dr.Elsa Daniel
10. Dr. Eyob fisseha
11. Dr. Hailegebriel Degefu
12. Dr.Mehari Temsgen
13. Dr.Melkamu Tafesse
14. Dr.Mohammedamin Kelil
15. Dr.Samrawit Esayas
16. Dr.Shikuria Lema
17. Dr.Tadesse Debrya
18. Dr.Tadesse Dugasa
19. Dr.Tesahun Tekle
20. Dr.Tesfahun Tekle
21. Dr.Tewodros Fikadu
22. Dr. Yalew Tsegaye
23. Dr. Said Osman

Graduating Class

1 Dr. Abebaw Muhabaw Zegey
2 Dr .Alpha Seifu Ail
3 Dr.Belay Tsega Ayenew
4 Dr. Biruk Fekadu Tebebie
5 Dr. Daniel Demie Abiebie
6 Dr. endrias Habte Belay
7 Dr. Getaneh workneh Kass
8 Dr. milkiyas Tsegaye Haile
9 Dr. Shlkure Esmale Mossa
10 Dr.Tamirat Hanoko Hadello

AAU-R3

1. Dr. G/Mariam Atalay
2. Dr. Getasew Alehegn
3. Dr. Bethel Zeleke
4. Dr. Bezawit Teferi
5. Dr. Demelash Besha
6. Dr. Tewolde Birhane
7. Dr. Dagim Matebie
8. Dr. Antench Bekele
9. Dr. Natnael Shewatatek
10. Dr. Kidanu Chala

AAU- R2

1.Dr. Abas Abubeker
2.Dr. Abay Birhan
3.Dr. Alazar Member
4.Dr. Ayenew Mulualem
5.Dr. Binyam Dagnaw
6.Dr. Dawit Getachew
7.Dr. Bisrat Tilaye
8.Dr. Haileyesus Abdisa
9.Dr. Kassahun Anteneh
10.Dr. Lopiso H/Mariam
11.Dr. Mehariw Zena
12.Dr. Muhammed Fentaw
13.Dr. Surafel Esmelealem
14.Dr. Teklegiworgis G/Medin
15.Dr. Yisak Destalem

AAU -R1

1. Dr. Abraham Workineh Azalef
2. Dr. Adonias Ager Sinshaw
3. Dr. Habtamu Minwagaw Admassie
4. Dr. Gedion Yilma Amdetsion
5. Dr. Fantahun Bantigegn Seyoum
6. Dr. Nebiyu Eliyas Aliyu
7. Dr. Bizuayehu Amanu Aynalem
8. Dr. Tefera Belay Abera
9. Dr. Fantahun Mesele Meneye
10. Dr. Wondimagegn Tibebu
11. Dr. Shewangizaw Petros

AAU Ortho-Trauma Subspecialty

1. Dr. Biniam Teshome
2. Dr. Teshome Tena
3. Dr. Solomon Melaku

AAU- Toronto 1st Graduates

1. Dr. Menewer Yirga
2. Dr. Misgana Temesgen

AAU-COSECSA Trainees

1 Dr. Maedot Mihrete
2 Dr. Tesfahun Ali

Graduates 2020 St.Pauls' Hospital Millennium Medical college(Sphmmc)

1 Dr. Getasew Tessfaw
2 Dr. Bereket tsegaye
3 Dr. Teshale Lodamo
4 Dr. Netsanet Abebe
5 Dr. Aytegeb Ayehu
6 Dr. Samuel kebede

2021

1 Dr. Ashenafi Ayalew Mihret
2 Dr. Ashenafi Udessa Biftu
3 Dr. Beza Gireff Tadesse
4 Dr. Habtewold Mulat Ayele
5 Dr. Idris Hassen Mussa
6 Dr. Kalkidan Ayalew Mulat
7 Dr. Meron Kelil Mohamed
8 Dr. Mulugeta Bekele Geneti
9 Dr. Sintayehu Tekle mamo
10 Dr. Soaleh Ebrahim Molla
11 Dr. Omer Mohamed Farah

2022

1 Dr. Alebachew Misgan
2 Dr. Anteneh Damena
3 Dr. Bekele Chimdesa
4 Dr. Berhanu Andarge
5 Dr. Bezayit Tesfaye
6 Dr. Cheru Beyene
7 Dr. Daniel Teklu
8 Dr. Dawit Alemayehu
9 Dr. Desta Girma
10 Dr. Endalamaw Fentie
11 Dr. Giday Zeru
12 Dr. Kirubel Girma
13 Dr. Leake Tirfe
14 Dr. Lelisa Merga
15 Dr. Sahle Tsegabrhan
16 Dr. Tolasa Dibisa
17 Dr. Tsegaw Tamene

Graduating Class

1. . Dr. Abberu Eyasu
2. Dr. Samuel Workineh
3. Dr. Mateyas Bizualem
4. Dr. Sirage Abrew
5. Dr. Eyob Ketema
6. Dr. Yohannes Shugie
7. Dr. Ararso Gonfa
8. Dr. Sani Hussien
9. Dr. Fuad Elias
10. Dr. Gemechis Ragasa
11. Dr. Biniyam Tadesse
12. Dr. Teyib Ababiya
13. Dr. Lemessa Gonfa
14. Dr Ashenfi Negash
15. Dr. Birhanu Mekuria

Sphmmc -R3

1. Dr. Amir Wodaje
2. Dr. Aragaw Kibret
3. Dr. Daniel Endale
4. Dr. Kajela Abu
5. Dr. Moti Mulatu
6. Dr. Senayad Benti
7. Dr.Tariku Beriso
8. Dr. Tesfatsion H/Michael
9. Dr. Teshome Eshetu
10. Dr. Tilahun Mulu
11. Dr. Tuji Mohammed
12. Dr Biniyam Assefa
13. Dr.Ayalew Komande
14. Dr.Mohammed Ahmed
15. Dr.TeklebirhanGebrekirstos

Sphmmc -R2

1. Dr. Abubeker Shikur
2. Dr. Abdella Abdirahman
3. Dr. Bereket Argaw
4. Dr. Cherenet Fikadu
5. Dr. Eyoel Tesfaye
6. Dr. Nathan Wondwossen
7. Dr. Nessredin Ahmed
8. Dr. Salih Adem
9. Dr. Solomon Almaw
10. Dr. Tsadiku Tsegaye
11. Dr. Yeabtsega Degu
12 Dr Amana Bedassa

Sphmmc -R1

1. **Dr. Abdifetah Mohammed**
2. **Dr. Abel Assefa**
3. **Dr. Abera Nigussie**
4. **Dr. Bonsa Bekele**
5. **Dr. Gachana Moti**
6. **Dr. Khadar Abdi**
7. **Dr. Lokoya Innocent**
8. **Dr. Webet Demessie**
9. **Dr. Moti Teshome**
10. **Dr. Natnael Fikru**
11. **Dr. Samuel Hussein**
12. **Dr. Solomon Gebrie**
13. **Dr. Sultan Kelil**
14. **Dr. Tefera Addisae**
15. **Dr. Mitiku Leulseged**
16. **Dr. Nigat Tefera**
17. **Dr. Gezahegn Mulu**

Bahir Dar University Graduates -2022

1. Dr. Aderaw Getie Mewahegn
2. Dr. Almaw Bitew Asres
3. Dr. Bekalu Wubshet Zewudie
4. Dr. Binyam Biresaw Netsere
5. Dr. Birhanu Beza Tegegne
6. Dr. Daniel Adane Derso
7. Dr. Solomon Kassaye Enigida
8. Dr. Tafere Wasie Fentie

BDU -R4

1. Dr. Mulate Abie |Mesele
2. Dr. Yeab Mulat Mesfin
3. Dr. Biniam Zemedu Assefa
4. Dr. Biruk Ferede Zewdu
5. Dr. Misganaw Alemu
6. Dr. Wubshet Aderaw Workneh
7. Dr. Gashaye tagele ayele
8. Dr. Getachew Wuhib Shumye

BDU - R3

1. D.r Solomone Melkamu
2. Dr. Birlew Tesome
3. Dr. Nagaasaa Habetamu
4. Dr. Abiy Misganaw
5. Dr. Diress Yeshaneh
6. Dr. Zerfu Bala
7. Dr. Dawit Asmamaw
8. Dr. Milkessa Hunde
9. Dr. Workineh Mengsha
10. Dr. Abrham Amare
11. Dr. Melkamu Adamu

BDU - R2

1. **Dr. Tsegalem Birlie Tesfaye**
2. **Dr. Mikias Hailu Sahlu**
3. **Dr. Sabboona Idea Daba**
4. **Dr. Alemneh Zemene Kassa**
5. **Dr. Ephrem Bekele Kebede**
6. **Dr. Adugnaw Bogale Worku**
7. **Dr. Nuredin Hamid Mohammed**

BDU - R1

1. **Dr. Dawit Alem Abebaw**
2. **Dr. Fikremariam Mesele Abate**
3. **Dr. Habtamu Fekadu Liy**
4. **Dr, Samson Bitew Alehegn**
5. **Dr. Tariku Mezigebu Tessema**
6. **Dr. Natnael Assefa Alamnie**

University of Gondar (UOG) Residents

UOG -R3

1. Dr. Desalegn Talu
2. Dr. Wodaje Mesele

UOG - R2

1. Dr. Hailemariam Wuetu
2. Dr. Koyachew Abate
3. Dr. Demis Hailu
4. Dr Sileshi Serebe

UOG -R1

1. Dr. Tigistu Atalay
2. Dr Wuletaw Muchie

Mekele University Graduates -2021

1 Dr. Aguer Ayul Warabek
2 Dr. G/Her Mahtsun
3 Dr. G/Michael Aregawi
4 Dr. Ketema H/mariam
5 Dr. Kout Mabior Leek Dang
6 Dr. Million Tareke
7 Dr. Solomon Ayele
8 Dr.Tewelde Nuguse

Graduates -2022

1 Dr. Kahsay G/aregawi Weldemihret
2 Dr. Goitom Brhane Gebreedziabher
3 Dr. Beyene Abebe Nrea
4 Dr. Kidanemariam Abrha Teka
5 Dr. Yohannes Gebremedhin Berhe

Mekele University- R4

1 Dr. Berhe Birhane G/silassie
2 Dr. Biniam Assefa Alamer
3 Dr. Kibrom Hadush Syum
4 Dr. Solomon Tikur Gelaye
5 Dr.Tsegay Birhane Bisrat
6 Dr.Yasin Awil Elmi (AAU)
7 Dr. Mohamed Mohamud Farah (AAU)

Mekele University- R3

1. Dr. G/Yohannes Mezgebe
2. Dr. Teklebrhan G/Chirkos
3. Dr. Ridwan Mohammed (AAU)
4. Dr. Ayalew Komandie
5. Dr. Mohammed Ahmed
6. Dr. Adamu Belete (AAU)

Mekele University- R2

1. Dr. Addis Abebe (AAU)
2. Dr. Amana Bedasa (SPHMMC)
3. Dr. Biniyam Marie
4. Dr. Mengistu Gebeyehu (AAU)
5. Dr. Mesay Tamirat
6. Dr. Tolosa Dinsa (HU)
7. Dr. Wondifrew Kebede (HU)

Hawassa University -Residents

HU- R2

1. Dr. Afework Mabrie
2. Dr. Biruk Dubale
3. Dr. Chanyalew Dires
4. Dr. Feysel Mifta
5. Dr. Hizkyas Kassaye
6. Dr. Peter Garang
7. Dr. Tolosa Dinsa
8. Dr. Wondifrew Kebede

HU- R1

1. Dr. Bereket Abeje
2. Dr. Bereket Petros Beyene
3. Dr. Enyew Getachew Siyum
4. Dr. Meselc Matusala Mera
5. Dr. Israel Wakjira
6. Dr. Morris Justin Jakwot
7. Dr. Tumsa Beyene Turo
8. Dr. Zuber Hussen Zuber

Soddo Christian Hospital

Graduates -2022

1. Dr. Temesgen Zelalem

SCII – R3

1. Dr. Abenezer Eyasu
2. Dr. Yohannes Nigusu

SCH – R2

1. Dr. Ebsa Bekako

SCH – R1

1. Dr. Naol Jigi

Jimma University

JU – R1

1. Dr. Sherefedin Hassen
2. Dr. Abdulhakim Kemal
3. Dr. Andualem Tesfaye
4. Dr. Sudi Temam
5. Dr. Hana Umer
6. Dr. Menal Mohammed

Adama Hospital Medical College

ADHMC – R1

1. Dr. Bereket Bura
2. Dr. Bereket Desalegn
3. Dr. Fitsum Temesgen
4. Dr. Mathewos Admasu
5. Dr. Michael Ermias

Haramaya University
(Hiwotfana Hospital)

HU – R1

1. Dr. Tesfahun Kebede Nunne
2. Dr. Olifan Getachew Wakjira
3. Dr. Hunduma Bikila
4. Dr. Oliyaad Dokter

Wachemo University, Hosanna (WCU)
Pending

List Compiled by Dr. Tezera & Dr. Mahder Eshete
(Please notify her if you have any corrections)

ETHIOPIAN UNIVERSITY HOSPITALS GIVING SPEIALITY TRAININGS IN ORTHOPAEDIC SURGERY

S. No	University/ Hospital Name	Training/ Course/ Program	Year Started	#Graduated so far	Currently in Training	TOTAL	Current Department Chair/Head
1	Addis Ababa University, CHS TASH/"Black-Lion"	Specialty	1987	186	46	232	Prof. Biruk Lambisso
		Sub-Specialty	2017	2	3	5	
		Pelvic Surgery	2017	3	2	5	
		COSECSA	2022		3	3	
2	Millennium Medical College, Saint Paul/AaBET	Specialty	2016	47	39	86	Dr. Netsanet Abebe
3	Mekele University/Ayder	Specialty	2017	13	20*	33	Dr. Yoseph Zekarias
4	Bahir Dar University/ Tibebe Ghion	Specialty	2018	8	32	40	Dr. Worknch Mengesha
5	Soddo Christian Hospital	Specialty	2019	1	4	5	Dr. Duane Anderson
6	Gondar University H.	Specialty	2020	-	8	8	Dr. Almaw Bitew
7	Hawassa University H.	Specialty	2021	-	16	16	Dr. Sintayehu Busa
8	Jimma University H.	Specialty	2022	-	6	6	Dr. Tegenu Dinku
9	Medical College, Adama H	Specialty	2022	-	5	5	Dr. Sintayehu Tekle
10	Haramaya Univ./Hiwotfana	Specialty	2022	-	4	4	Dr. Moa Chali
11	Wachemo University	Specialty	Pending	-	-	**448**	Dr. Mathias Seid

- There are 14 Female Senior Specialists and 6 Female Orthopedic residents in Ethiopia.
- The average National yearly intake capacity of new Orthopedic residents is 60

ESOT Awards & Awardees

***ESOT Highest Merit Award**

-Dr. Duane Anderson
-PROF. Biruk Lambisso
-Dr. Samuel Hailu
-Dr. Richard Gardner

***Long Years of Ortho Service Award**

1-Dr. Tezera Chaka (Graduate of 1993 G.C)
2-Dr. Duane Anderson
3-Dr. Woubalem Zewdie (1994)
4-Dr. Legesse Yigzaw (1996)
5-Dr. Bahiru Bezabih
6-Dr. Zegene Taye

***ESOT Special award**

1-Dr. Eric Gochen
2-Dr. Biruk Lambisso
3-H.E. Ato Workneh Gebeyehu (MOT)
4-H.E. Amin A (Minster of Tourism)
5-Dr. Geletaw Tessema
6-Sr. Worknesh, Sr Alemtsehay and Nr. Sirak
7-Sr. Eyersusalem Amenu

***BEST RESEARCH PAPER AWARD**

1. Dr.Ephrem G/Hana,
2. Dr. Nardos Worku
3. Dr. Mengistu G/Yohannes
4. Dr. Kaleab Tesfaye
5. Dr. Amanuel Leulseged
6. Dr. Eyouael Ambaye

ESOT Annual Distinguished Award Categories:

Category I: ESOT Highest Merit Award

Requirement:

* Active member of the Society
* Individual exemplary service in the profession
*Very outstanding contribution to initiate/progress/maintain excellence in the practice of Orthopedics & Traumatology in their institution or country
* Willingness to nurture young professionals under his/her service
* ESOT participation and significant contribution to the growth of the society
*significant participation in the promotion of the profession

Category II: ESOT Long-Year Service Award

Requirement:

*Professional Degree
*Active member of the society
* At least 20 years of exclusive active engagement in the service of the field of orthopedics & Traumatology (Contributes for 70% of the Calculation for consideration)
*Outstanding contribution to the Science of the profession
* Significant contribution in promotion and advocacy of the profession
* Outstanding community service with regard to medical service
* Significant Research and academic contribution

Category III: ESOT Institutional Award

Requirements:

* > 5 years of distinguished service/Related contribution in the field of Orthopedics & Traumatology
*Their service made widely significant difference in the field of Orthopedics & Traumatology in the country
*significant community service in relation to the profession
*willingness of the institution to the growth of Clinical, Academic & research service of the profession

Category IV: ESOT SPECIAL WARD:

*This will be a special occasional award to be unanimously decided by the ESOT EC members. May not be given on yearly basis.
* Any ESOT member or Non-member with a special contribution to the advancement of Ethiopian Orthopedic care is eligible

Category V: ESOT Best Research Award

Requirements:

* Active member of the society
* Outstanding Clinical research output in the fiscal year with new idea or new methodology
* Willingness to participate in the society Annual Conference with Oral presentation
* Possible publication in reputable journal. Youngster and residents are encouraged. THESIS projects are plus!

NB: this category award will be decided independently by the Editorial Committee on additional specific technical Objective Criteria

Category VI: ESOT Best Research Award

Requirements:

- Active Female Orthopedic Surgeon, member of ESOT
- Distinguished Orthopedic Clinical service, research, leadership
- Exemplariness to recruit and impact more female residents through impeccable leadership is a plus.
- May not be given on regular basis (ESOT EC decides)

N.B

-All Awardees, except Best Research and Special Award are selected by ESOT Award Committee
- Best research of the year, presented at ESOT AGM, will be selected by the editorial committee
- Special award is nominated by the ESOT-EC
- ESOT Meritorious and Long-year service award are given once in life time. Others may be given repeatedly
- To avoid repetition and ensure fare distribution of awards, name of previous awardees shall be updated on ESOT magazine every year.

List of Full Research Articles accepted for oral presentation at the 15th ESOT AGM

1. Bone Setter Associated Disability (BOSAD) study in Ethiopia: A Facility based pilot study (continuation)
2. Hip Joint distraction using the universal large distractor: A simple useful tool in acetabular fracture study
3. World Health Organization(WHO) trauma registry implementation in resource limited set up: Ethiopia context
4. Evaluation of quality of life in patients who had undergone surgical treatment for adolescent idiopathic scoliosis at Aabet Hospital from January 2016 to December 2019
5. Mid-term clinical and radiological outcome of children treated with surgical man agement for DDH during walking age from 2013 -2017 at cure children's Hospital, Ethiopia
6. Treatment Refusal and Abandonment amongst Orthopedic Emergency Patients: A Retrospective Observational study at a teaching hospital
7. Prospective Cohort Study on incidence and Risk Factors of pin Tract Infection after external Fixation of Fracture at Aabet Hospital, 2022
8. Proportion and Associated Factors of Delayed Presentation among Patients with open Fracture at Tibebe Ghion Specialized Hospital Bahirdar, Northwest Ethiopia
9. Impact of SIGN in treating Soldiers with bullet fractures of the recent war in Ethio pia
10. Stress Fracture of the pubic Rami in a marathon Runner: A case Report
11. ET Bionics, Building hopes with Bionic hands. Team TASH & TAS
12. Orthopedic injury patterns at a tertiary referral Hospital: A prospective observa tional study. Drs Samuel H, Hiwot G and Gabrie A
13. Prevalence and Associated Factors of infection after Intramedullary Nail surgery among patients attending St.Paul's Hospital Millenium Medical college, Aabet Hos pital, Addis Ababa, Ethiopia

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TIKUR ANBESSA
SPECIALIZED HOSPITAL · SINCE 1972

Mother department's main achievements in 2014 EFY.

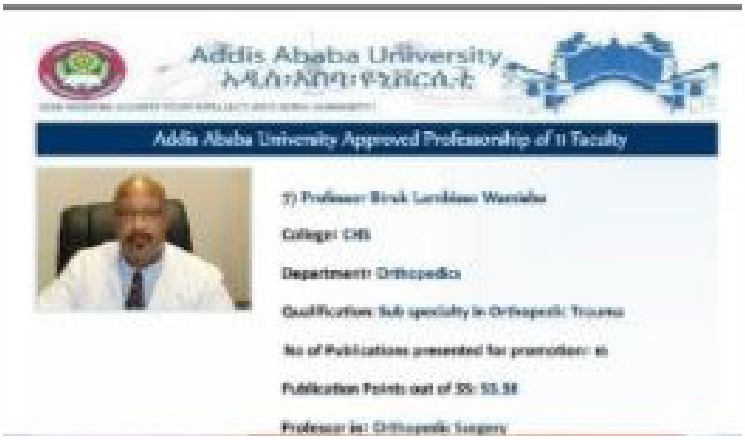
(AAU ,CHS ,SOM,DEPARTMENT OF ORTHOPAEDICS)

Although 2014 has been a challenging year mainly due to the increased workload created by the recent conflict and COVID pandemics, the department has managed to achieve several milestones.

One of the most significant success for the department was, witnessing the successful completion and graduation of its first ever trauma fellowship trainees. The mother department considers this as a significant milestone since it serves as a motivation in opening several other fellowship programs especially pediatrics and oncology.

Also, for the first time in the department's history, professor Biruk Lambiso, one of the staff, who is also current department head/char, had been promoted to full professorship, making him the first professor of orthopedics surgery in the country. AAU , mother Department and ESOT have each hosted a vibrant cermonies in recognition of this high achievement This has many implications for the orthopedics family as it encourages everyone to engage themselves in research. As research is also one of the focus areas in the department, many of its members are expected to get promoted to full professorship in the near future.

Similarly, Dr. Samuel Hailu, head of the Trauma Unit in the department, had received the "Humanitarian scholar award" at the 37th OTA annual meeting held in Texas USA, for his research in assessing the outcome of complex acetabular fractures fixation in a resource limited setup.



The mother department has always encouraged community outreach programs, as it is one way of reaching the most remote part of the country. To this effect, Dr. Geletaw Tesema, trauma and arthroplasty surgeon in the department and current ESOT president, has led a team of volunteers and treated several patients who were in need of orthopedic surgeons in Alem Ketema Enat Hospital, Amhara region, Ethiopia.

Within the past year, the department has also welcomed Dr. Ermias Gizaw, the first ever oncology orthopedic surgeon in the country, after he completed 3 years of fellowship training in the UK. After his arrival he has established a collaboration with Radiologists and oncologists to better manage patients who are seeking care. The department has a plan to increase the number of oncology surgeons and establish a fellowship program in the coming few years.

St Paul's hospital Millennium medical college , Aabet hospital

The orthopedics and traumatology department is one of the major departments that resides in Aabet hospital and manages huge number of orthopedic and trauma cases per year. Even though it was a young department established in 2015, it has become a fast growing department with young and energetic surgeons.

It has 17 orthopedic surgeons among which nine are general orthopedic surgeons. It has a pelvic and arthroplasty unit led by Dr .Milkias and Dr. Ebrahim, a sport and arthroscopy unit led by Dr. Mahder and Dr. Mamo and pediatric orthopedic unit led by Dr.Netsanet. This composition makes us a leading orthopedic department in delivering a variety of specialized services to our clients.

We have two more surgeons on pelvic and trauma fellowship abroad and one on pediatric orthopedic fellowship at Cure hospital. There are additional three staff residents who will finish their residency this year and join the department.

We are also training 58 residents including the five residents we received from Mekele. We have strong relation with affiliation centers and send our residents to work at different areas of the country. We are on the verge of graduating our 4th batch residents and expect them to bring a dramatic change in the orthopedic service they will provide.

The department has contributed a lot during the COVID pandemic and the political instability. Our surgeons were responsible for coordinating, managing and performing large number of surgeries both at Millennium center as well as Aabet hospital.

In the coming years, we will continue to strive to make our department great by creating more opportunities for sub-specialty training, improving our focus on our residents ,increasing our relationships with our fellow departments in other hospitals and delivering standardized scientific based care to our patients.

Bahir Dar University, Tibebe Ghion Specialized Hospital

1. SIGN fracture care international is selected as Best Partner of the Year (2022/2022) by BahirDar University College of Medicine and Health Sciences (BDU-CMHS) Senate Mandate in its meeting held on 13th July 2022. SIGN Company is helping in donating implants since 2014G.C, preparing webinars for residents and orthopedic surgeons, sponsoring fellows in orthopedic trauma. Their contribution was magnificent during northern war in treating injured patients.

2. Bahir Dar university, Department of orthopedics and traumatology awarded cup for its contribution to the northern war crisis in 2013 and 2014 E.C by Amhara regional health bureau

3. Bahir Dar University, Department of orthopedics and traumatology creates new partnership with Rabin Medical Center, Israel. The team from Israel donates implant for bone transport, bone cement and they perform advanced bone gap reconstruction surgery in Tibebe Ghion Specialized Hospital with local orthopedic surgeons. They gave also course for residents and OR nurses on principle of fracture management.

Hawassa University College of Medicine & Health science,

Department of Orthopedics & Traumatology: Continuum of aspiration for Excellence

Background

It has been nearly seven years since Orthopedics practice has been developed in Hawassa University, College of Medicine and Health Science. Initially, an independent unit was established under the department of Surgery with the dedication of Dr. Ephrem G Adem and his Colleague Dr. Mamo D Desu following their Orthopedics residency completion at the end of 2015. Going through all the hurdles, the unit has excelled in various academic services and achieved department status in 2021 with the launching of Orthopedics Residency program.

Staff Members

Currently the department has various engagements with seven full time senior physicians including one subspecialist in Advanced Trauma and Arthroplasty. The department outlined sub-specialty training plan years ahead and three consultants are on the process to pursue their advanced fellowship training abroad & inside in Spine Orthopedics, Advanced trauma and Pediatrics Orthopedics respectively. There are also staff residents who are on their residency program at different institution of the country to build up on.

Clinical, Academics & Research Activities

Over the years, different clinical, academic and Research activities have been instituted. The clinical wing has an Outpatient service working five days per week with senior Consultants, and a dedicated operation theater with separate nursing unit working every hours of the day on both emergency and elective cases. The inpatient wing has 50 inpatient beds majorly admitting trauma cases. Also, separate Pediatrics Orthopedics ward accommodates twelve extra patients.

Academically, we have launched a residency program in Orthopedics and Traumatology and accepted two batches of eight residents in the past two consecutive year ; including two south Sudanese residents. Residents from Departments of general surgery, Maxillofacial and Emergency Medicine attach in our department for their orthopedic training. Regular undergraduate teaching is also provided

We are proud to mention that we have a well-established Research unit under the department of orthopedics constituting seven additional full time research assistant staff members. The unit is running multiple research activities including Disciplinary, thematic and national projects which will bring impact to the community and scientific

scholars. In the near future, we expect many outputs to pour from these incredible research work which, hopefully, will be a turning point for other sister institutions to start similar initiatives. We strongly believe this unit can bring significant advancement in the field of Orthopedics.

Partnership

Since Inception, we have signed different collaborative partnership agreements with multiple stake holders & partners both from abroad and locally. We have MOU signed with SIGN, AOA. ADFA, NOTAA, AAU, Cure international Children Hospital and various others.
We have undertaken many academic trainings and many thousands of patients have benefitted out of the mentioned collaborations.

What is NEW?

Our Inpatient wards are undergoing significant physical Renovations and a new three Table dedicated Orthopedic OR is under the final phase of reconstruction.
We have successfully run more than 20 rounds of AO Alliance Non-operative fracture management course for Medical Interns during their first week of Surgery attachments over the past few years and we will continue to do so; we recommend others to follow this trend. Again, we are conducting a feasibility study of the non-operative fracture management course to medical interns to incorporate the course into the

Soddo/Cure Pan-African Academy of Christian Surgeons Orthopedics Residency

PAACS is a program established with a goal of training excellent Christian surgeons designed with a goal to meet the deep surgical need of Africa. The PAACS programs are accredited through Loma Linda University, College of surgeons of East, Central and South Africa (COSECSA) and of course the Higher education quality assurance of respective countries. PAACS orthopedics Ethiopia residency program was launched in January 2017 with the same goal and accredited through the same bodies. It is a five-year program with rotations in other PAACS hospitals notably Kijabe Hospital in Kenya. The program was initiated with the collaboration of two hospitals: Soddo Christian Hospital in Wolayita Soddo and Cure Ethiopia in Addis Ababa.

The Initiation of PAACS ortho Ethiopia required the involvement of a lot of individuals and willing bodies; but the role of two great surgeons was immense. The first one is Dr. Duane Anderson who has his fingerprint on all of us; known for his excellent care for patients, dedicated teacher and mentor as well as a servant leader. His tremendous input has made this program fruitful. The second surgeon Dr. Tim Nunn is from Cure Ethiopia; also an excellent surgeon, mentor known to all of us for his incredible work with TSF and ilizarov frames. He is the current program Director of PAACS orthopedics Ethiopia, his contribution to the program is invaluable. The Program has graduated its first resident Dr. Temesgen Zelalem in January, 2022. We are very grateful to see the program thrive and contribute to Motto ESOT stands for Excellent Orthopedic Care for all Ethiopians.

ALERT

ALERT was initially a leprosarium established by the Sudan Interior Mission (SIM) in 1934. The hospital was given high attention by Emperor H/ Selassie I and named it after his daughter, Princess Zenebework memorial hospital. As a result of an increase in the magnitude of Leprosy and its impact in Africa, the idea of establishing a leprosy training centre was conceived by many international donor agencies which was the basis for princess Zenebework memorial hospital to be converted to ALERT (All Africa Leprosy Rehabilitation and Training Centre) on December 11, 1965 G.C. Since 2020, considering the services delivered, ALERT Centre has been renamed Alert Comprehensive specialized hospital

Alert has been administered by the Federal Democratic Republic of Ethiopia's Ministry of Health since 2002. It is one of the biggest hospitals by patient flow in the nation, with a daily patient flow of about 2000, providing service for more than 500,000 patients each year. It also provides academic services in selected fields of study in affiliation with Addis Ababa University and other governmental and private institutions.

Alert has its roots in leprosy care and treatment. Most of the departments at Alert developed from specialties providing comprehensive leprosy care: orthopedic surgery being one of them. Orthopedic services at Alert date as far back as the 1970s. Then, missionary surgeons from the US and various parts of Europe provided debridement, ulcer care, follow up and amputation when needed. Dr Eugene kellersberger, an American physician who pioneered in the treatment of leprosy and one of the founders of ALERT in 1965 who served the center as the managing director is a notable mention.

Alert is also the home of Dr. Solomon Ekubeyonas, a renowned orthopedic and reconstructive and hand surgeon. He completed his studies at Addis Ababa University and became an orthopedic surgeon in 1990. He then joined Alert hospital as a physician and quickly became a father figure to not only his patients but also his colleagues working at all levels. Out of the 100 beds the center had, 30 were dedicated to Dr Solomon's patients, which were usually leprosy patients requiring not only orthopedic but also reconstructive surgery along with trauma patients, children with club foot. He completed his subspecialty in reconstructive and hand surgery in India in 2003 and until his passing has taught and treated many. He was known for his dedication, selflessness and work ethic.

Currently our Orthopedic Department has 7 General Orthopedic surgeons and 1 Trauma subspecialist out of which 7 are actively engaged in all day to day activities and one surgeon travels to Dubti Hospital in Afar region to provide training and service. We are engaged in both emergency and elective services daily striving to increase the quality of care and its scope. We have 1 OR table dedicated for orthopedic emergencies and one for elective surgeries, a ward for elective cases consisting of 30 beds and 10 beds in our Trauma ward.

Alert's Orthopedics Department is burdened with a growing number of trauma patients each day. Over the past year, we have operated on 1883 major surgeries in total with 881 cases being elective. We did our part in the recent conflict in the North of Ethiopia where more than 300 major surgeries were done out of which 201 cases were Isolated Orthopedic cases and more than 43 joint procedures with our Plastic and Reconstructive surgeons. Out of the total cases majority were long bone fractures 82 cases accounting for 41%, for whom Intramedullary Nailing was done and the rest included other fractures for whom ORIF was done accounting for

16% and others with Open fractures for which Ex-Fix was done for constitute another 16% of cases.
Alert Orthopedic department and Alert Hospital as a whole is growing and improving each day to become an establishment which gives Quality and timely care for patients. It is in the process of becoming a teaching institute by the coming year. We plan to send surgeons for subspecialty training to broaden our services, improve our skills and exposure. Orthopedics is doing its part in Alert's vision to become a center of excellence in Africa and will continue to do so

Short Story of Wachemo University Nigist Elleni Mohammed Memorial Comprehensive Specialized Hospital Orthopaedic Surgery.

Short Story of Wachemo University Nigist Elleni Mohammed Memorial Comprehensive Specialized Hospital Orthopaedic Surgery.

Nigist Elleni Mohammed Memorial Comprehensive Specialized Hospital was built in 1976 E.C by the contribution of the society of Hadiya and Kambata. It was initially named after President Mengistu Haile Mariam. It was among the few hospital during Dergue Reign. For 34 years there was no Orthopaedic Surgery Service in the hospital nor within 100 km radius. The hospital was built to serve around 3.5million population. Over the years there has been a lot of improvements and expansion of services.

The Orthopaedic Surgery Service started by the initiative of Dr Habtamu Tamrat who was a Final Year resident in Addis Ababa University. He provided orthopaedic services during his month off. The first Orthopaedic Surgery in Nigist Elleni Mohammed Memorial Comprehensive Specialized Hospital was done on September 15, 2018. Other orthopaedic surgery residents did monthly rotations for the next few months until Dr.Habtamu completed his training on December, 2018. Then after his completion he moved to Hossana and started to strengthen an infant Orthopaedic Surgery Practice. Because of lack of a dedicated Orthopaedic ward, sometimes overwhelming load of our patients led to occupancy of the whole general surgery wards: this was a cause for many arguments and dialogue s. We were able to negotiate with our university management to purchase some of orthopaedic surgery equipments and implants explaining the rapidly increasing Road Traffic Accident Rate in the region.

After two months of practice, we were able to meet ADFA and AO Alliance in Addis Ababa and they agreed to establish the newly started Orthopaedic Surgery Center. Sr Eyerusalem Amenu joined our hospital for one month together with other ADFA team to train our staffs: our ORPs and Ward Nurses got hands on experience. There was also group of experts from ADFA who consulted and operated more than 20 patients during their stay.

Our University President gave special attention to establish and strengthen Orthopaedic and Trauma Centre and hence a separate building dedicated for Orthopaedic Surgery and Traumatology service was built. Initially

we were given one orthopaedic dedicated Operating Theatre and ward with 20 beds for orthopaedic Surgery service. After one and half year service we now have two Orthopaedic Surgery Operating Theatres and Separate ward with 45 Beds and Minor OR.

ADFA has donated a 40 feet Medical equipments and supplies to strengthen our centre. AO Alliance also donated long list of Orthopaedic Implants and equipments through ESOT. During the era of COVID 19 Pandemic both ADFA and AO Alliance have shown us strong partnership, donating Personal Protective Equipment for our centre so that the service delivery and professionals will not be affected. Our Service was also further strengthened after Dr Matiyas Seid, who is an Orthopaedic Surgeon, graduated from Addis Ababa University in November, 2020 joined our team, he is currently the head of the department of Orthopaedic Surgery and Traumatology. We also have two residents on training who will join us soon.

Orthopaedic Surgery and Traumatology department delivers quality services including hemi arthroplasties. Previously our unit was under department of General Surgery, but it has been three months since it is named as Department of Orthopaedic Surgery and Traumatology. We are on preparation to start residency on 2015. SIGN Fracture Care International have also started to donate SIGN Nails and implants since few months back by the help of ESOT (Dr Biruk L., Dr Samuel H., Dr Geletaw T., Dr Ephrem G., and Dr Duane A.) I would like to appreciate Dr Loch Trimingham, Dr Lewis Zerkile, Naton, AO Alliance, ADFA and ESOT on behalf of my department and my institution.

Best Regards,

Habtamu Tamrat, MD, FCS-ECSA, Orthopaedic Surgeon
Assistant Professor of Orthopaedic Surgery
Chief Academic Director of CMHS, Wachemo University
habtamutamrat@wcu.edu.et

Australian Doctors for Africa tries to develop orthopedics and traumatology in Ethiopia according to the mantra 'train and equip'. During 2021/22 ADFA has provided:

- Orthopedic implants to seven orthopedic departments at hospitals in Addis Ababa, Hawassa, Hosanna, Bahir Dar, Wolayita Soddo and Dessie.
- New Autoclaves for Wolayita Soddo and Tikur Anbessa Hospitals.
- Anesthesia machine, Stryker drills and surgical instruments to Hosanna.
- Stryker drills, batteries, charger and surgical instruments to Hawassa and St Paul's.
- Infection Control Training by in-country nurse training team in Wolayita Soddo, Hosanna and Hawassa.
- On-line lectures at ESOT Annual Meeting by five Perth-based orthopedic surgeons.
- On-line faculty for AO Alliance Basic and Pre-basic Orthopedic Courses.

Kind regards,
Graham

SIGN Fracture Care

Creating Equality of Fracture Care Throughout the World

August 10, 2022

Dear Friends,

Welcome to the Annual Meeting of the Ethiopian Society of Orthopedics and Traumatology.

Ethiopia has the largest concentration of SIGN Programs in the world. There are currently 37 SIGN Programs in Ethiopia and more programs are being added each year. In 2021, there were 2,818 patients who were treated with the SIGN Nail. So far in 2022, 1,793 have been treated with the SIGN Nail. This is a testament to the quality surgery done by Ethiopian surgeons and to the excellent teachers and mentors in your country.

In addition to being a leader in orthopaedics, Ethiopia is becoming a leader in pelvic and acetabular surgery, due to the Pelvic and Acetabular Fellowship started by Drs. Samuel Hailu and Geletaw Tessema. This six-month program run at AAU, Black-lion Hosspital, Department of Orthopaedics now accepts two fellows from Ethiopia each year and two fellows from other African countries, who return to their hospital after their fellowship to start their own fellowships.

Sincerely,

Jeanne Dillner, CEO

SIGN Fracture Care International
is a non-profit corporation with 501(c)(3) tax-exempt status. Tax ID # 91-1952283
451 Hills Street, Suite B, Richland, WA 99354 | P 509.371.1107 | signfracturecare.org

GLH-005-15

The AO Alliance Ethiopia Country Initiative: Impact to date

After a year of limited in-person events, the AO Alliance resumed delivering fracture care education in Ethiopia in October 2021. Five back-to-back education events were held in October, with 218 residents, ORPs, and junior residents gathered in Addis Ababa for various operative fracture management courses, a faculty education program, and a clinical research course. Since 2021, over 30 trauma and orthopedic (T&O) surgeons have attended two faculty education courses designed to sharpen the teaching skills of existing AO Alliance faculty.

Since the Ethiopia Country Initiative was launched in 2016, over 200 junior T&O residents from the four national residency programs have taken operative fracture care courses. Over the years, more than 50 residents are enrolled in the regional hospital resident exchange program.

In partnership with the CURE Ethiopia Children's Hospital, over 28 senior T&O residents to date have received pediatric orthopedic training. The operating room personnel fellowship at CURE Ethiopia has attracted over 10 nurses in 2022.

The AO Alliance/AO PEER Clinical Research Course resumed in May 2022, with 77 participants.

International specialization fellowships have resumed with young Ethiopian surgeons embarking on fellowships in Canada, Egypt, and India.

Regional referral centers have been developed in Bahir Dar, Gondar, Harar, Hawassa and Hoseana.

Lastly, the Bone Setting–– Associated Disability (BOSAD) study has made great strides since data collection on the practice of, and complications from, traditional bone setting began in July 2021. Over 1,200 cases have been collected from the eight national health centers and one regional center that are participating in the study, including the leading site, Hawassa University Comprehensive Specialized Hospital.

16th ANNUAL ESOT SCIENTIFIC CONFERENCE

August 25, time	August 25, topics	Presenters	Moderator
Before 7:30am	Medical Exhibitors organize at their locations/booth		**Organizers**
7:30-08:30	Registration, Medical Exhibition		
8:30-8:35	Introduction	Dr. Nardos W	
8:35-8:45	Presidential Speech	Dr. Geletaw T	
8:45-9:00	Welcome and opening speech	H. E. Dr. Ayele T, State Minister,FMOH	
9:00-9:30	**ESOT Award for distinguished Candidates in Categories**	ESOT EC & Guest of Honor	
9:30-9:45	Avoidable deaths in a conflict zone	Dr. Richard Villar	Prof Biruk L Col.Dr Biruk
9:45-10:00	Masquelet procedure for the infected non-union	Dr. Richard Villar	>>
10:00-10:10	**Discussion**		>>
10:10-10:25	Winged Scalpel - a surgeon at the frontline of disaster	Dr. Richard Villar	Dr Tezera C Dr Bahiru B
10:25-10:40	The art of publishing a paper	Dr. Richard Villar	>>
10:40-10:50	**Discussion**		>>
10:50-11:20	**Tea Break**		
11:20-11:40	Impact of SIGN in treating Soldiers with bullet fractures of the recent war in Ethiopia	Prof Biruk L	Dr Eliyas A Dr Milkiyas T
11:40-12:00	Lessons learnt from treating war wounded: Millennium/AaBET Hospital emergency response	Dr Kalkidan A	>>
12:00-12:20	Characteristics and outcome of War Injury patients management at HUCMHS, A prospective Observational Study	Dr Messele	>>
12:20-12:40	**Discussion**		>>
12:40-14:00	**Lunch**		
14:00-14:20	Hip Joint distraction using the universal large distractor: A simple useful tool in acetabular fracture study	Dr Ephrem G	Dr Samuel H Dr Ebrahim A
14:20-14:40	World Health Organization(WHO) trauma registry implementation in resource limited set up: Ethiopia context	Dr Sintayehu B	>>
14:40-15:00	Treatment Refusal and Abandonment amongst Orthopedic Emergency Patients: A Retrospective Observational study at a teaching hospital	Dr Demiss H	>>
15:00-15:20	**Discussion**		>>
15:20-15:40	**Tea Break**		
15:40-16:00	Orthopedic injury patterns at a tertiary referral Hospital: A prospective observational study	Dr Hiwot H	Dr Birhanu A Dr Mamo D
16:00-16:20	Proportion and Associated Factors of Delayed Presentation among Patients with open Fracture at Tibebe Ghion Specialized Hospital Bahirdar, Northwest Ethiopia	Dr Solomon M	>>
16:20-16:35	**Discussion**		**>>**
16:35-17:00	**Exhibition, Photo Cermony**		
17:00	**End of day 1**		

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ETHIOPIAN SOCIETY OF ORTHOPEDICS & TRAUMATOLOGY

16th ANNUAL ESOT SCIENTIFIC CONFERENCE

August 26, Time	Topics	Presenter	Moderator
7:30-8:30	**Exhibition**	sponsors	
8:30-8:50	Gender Based Violence in Conflict and war Zone	Dr Betelhem D	Dr Woubalem Dr Nardos
8:50-9:10	Trauma Exposure and outcomes in Ethiopia	Dr Engida G	>>
9:10-9:30	Prospective Cohort Study on incidence and Risk Factors of pin Tract Infection after external Fixation of Fracture at Aabet Hospital, 2022	Dr Lemessa G	>>
9:30-9:50	Bone Setter Associated Disability (BOSAD) study in Ethiopia: A Facility based pilot study (continuation)	Dr Ephrem G	>>
9:50-10:10	**Discussion**		>>
10:10-10:40	**Tea Break**		
10:40-11:00	Evaluation of quality of life in patients who had undergone surgical treatment for adolescent idiopathic scoliosis at Aabet Hospital from January 2016 to December 2019	Dr. Dawit A	Dr Laurence Dr Tewodros A
11:00-11:20	Mid-term clinical and radiological outcome of children treated with surgical management for DDH during walking age from 2013 -2017 at cure children's Hospital, Ethiopia	Dr Netsanet A	>>
11:40-12:00	ET Bionics, Building hopes with Bionic hands. Team TASH & TAS	Dr Bezawit	>>
12:00-12:20	**Discussion**		
12:20-13:30	**Lunch**		
13:30-13:45	Stress Fracture of the pubic Rami in a marathon Runner: A case Report	Dr Mamo D	Prof Biruk L Dr Bekalu W
13:45-14:00	Unique way of treatment of giant cell tumor of distal femur in a 19-year-old female, a case report	Dr Elsa D	>>
14:00-14:15	Case Report on Locked Pubic Symphysis with Concomitant Ipsilateral Acetabular Fracture	Dr Milkiyas T	>>
14:15 – 14:30	**Discussion**		
14:30-16:00	**ESOT EC Report, External Audit Report & Assembly AGM**		
	Wrap-up, deliberations & closing of 14th AGM	**Dr. Geletaw, President**	
16-00:17:00	**Tea Service, Exhibition, Photo**		

Thank you!

Management of Bullet and Blast injuries of the Musculoskeletal System and The Role of orthopedic Surgeons During Armed conflicts

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Introduction

Ethiopia, one of the oldest countries in the world and being continuously inhabited, has a longstanding history related to war, has been involved in many of the major conflicts in the horn of Africa and was the only native African nation to remain independent during the scramble of Africa because of its ability to create a modern army. Despite all this modern medical care specifically orthopedic care was not properly delivered for victims of war and conflicts. Structured medical system including forward surgical team was rarely utilized during these times including the current armed conflict, as written and widely talked evidences told us; neither one dares to talk the exiting health institutions and health systems had been maximally utilized during wars and conflicts due to lack of supplies during these times. (1,2)

The Evacuation chain in the field

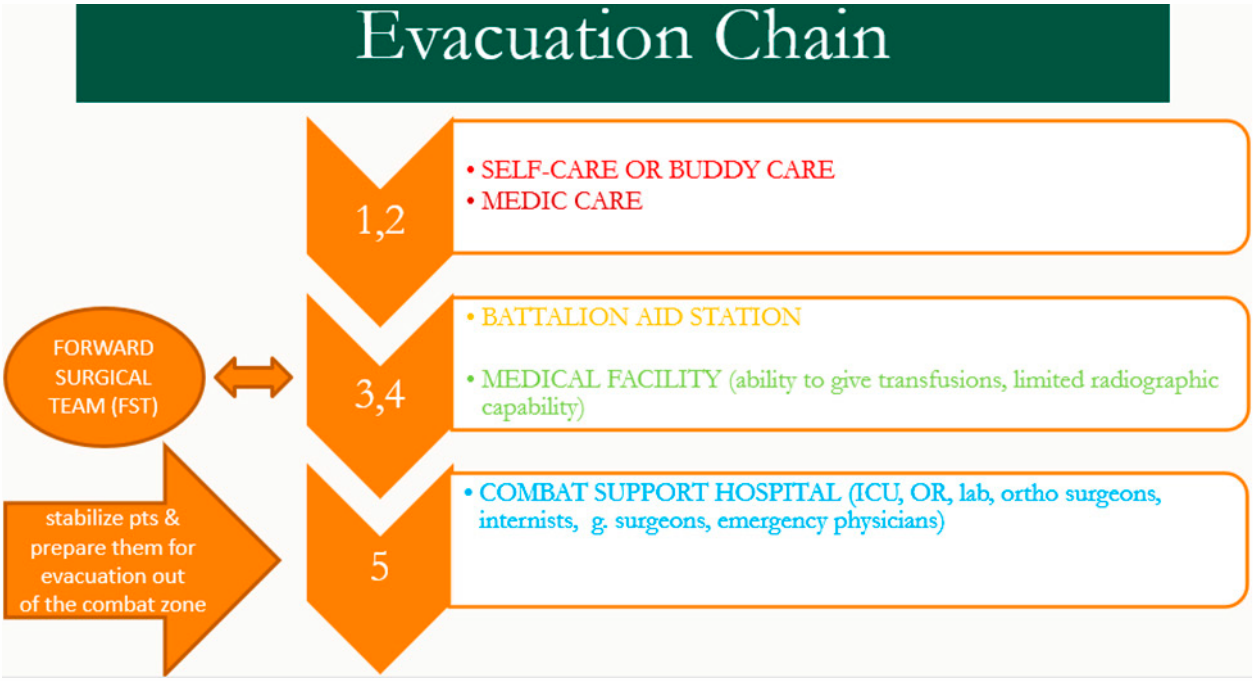
Wounded soldiers and civilians from the battlefield must be simultaneously treated and moved through the evacuation chain, the cascade of events which is proven to save lives and minimizes complications. The first treatment of a wounded soldier on the battlefield consists of self-care or buddy care. The first step may be to take cover from hostile fire. Treatment for extremity wounds consists of stopping the bleeding, applying a dressing, and splinting. (3)

The next step is care provided by a medic, who evaluates the patient and adjusts the dressings and splint. In this step the medic also has the capability of providing pain relief, administering antibiotics, and arranging for further evacuation. (4)

A battalion aid station may be the first physician contact for a wounded soldier. Here, the patient is further evaluated, splints and dressings are adjusted, and the patient is triaged. If the casualty load is light, patients are treated as they arrive. If the casualty load is heavy, patients must be triaged to allocate the resources of evacuation and surgical care. Ideally, the triage takes place along the entire evacuation chain. If a patient's condition worsens, his or her priority may increase. (4)

A more established medical setting is typically the next echelon of care in the evacuation scheme. This facility has the capability of providing blood transfusions and has limited radiographic capability. This unit is the first level of care with any bed holding capability. Adjacent to the medical company may be the forward surgical team (FST) that provides the first possible surgical support near the battlefield. The purpose of this unit is to provide surgical care of those patients whose outcome would be compromised by being evacuated farther for surgical care. Examples of patients who should have surgery at the FST are those with penetrating abdominal wounds who are in shock and those with major traumatic amputations. the FST is staffed with one orthopedic surgeon and two general surgeons. (4,5)

It should be clearly understood that, Surgical care by orthopedic surgeons takes place at the forward surgical team (FST), combat support hospital (CSH), or communication zone hospitals (COMMZ). (7)



This concept of echelon of care for wounded militaries was adapted to address critical gaps in trauma care during the Battle of Mosul to push humanitarian actors closer to the frontlines and improve access to care for injured civilians. These Mosul civilian trauma pathway was implemented as a chain of care for civilian casualties with three successive echelons (trauma stabilization points, field hospitals, and referral hospitals) and was found to improve access to trauma care for civilians injured near the frontlines compared to what would have been available. Coordination with stakeholders like World Health Organization, non-governmental organizations, civilian institutions, and private medical companies was found to have increased the effectiveness of these structures. The main lesson learned from this pathway is taking concerned responsibility for reaching to war injured civilians in an effective time with staged and integrated manner which was not practiced in many earlier wars or which was practiced in slow, fragmented, and poorly coordinated way only; and also opens a strong feeling for many humanitarian organizations to reach as frontliner to humanitarians not to professional militaries. (6)

The injured limb and the role of Orthopedic surgeons in a war setting

The anatomic distribution of war wounds change constantly time to time depending on the development of

new weapons systems, personal protective material (body armour), and the nature of combat during wars and conflicts. But there is one historic constant, preponderance of limb wounds and injuries over any other body regions amongst survivors. While earlier publications on war and disaster injuries stated the distribution of musculoskeletal injuries to be 45% to 55%, recent cohorts and reports from various wars including the International Committee of the Red Cross Hospitals reports stated the figure to be as high as 65% to 80%. (8)
Prompt amputation was the treatment for open fractures and severe soft-tissue injuries during the era of Civil Wars prior to world war I; but later with development of X-rays and aseptic surgery, orthopedic surgery as a specialty grew. By World War I, specialty orthopedic care was developed by the British and French forces, and adopted by U.S. forces. Early forward debridement and application of the appropriate splintage, such as the Thomas splint, would reduce mortality of open femur fractures from 80% in 1916 to 15.6% in 1917. With continues relearning, modifications and grew up, the lessons of debridement and stabilization remained constant through out every war. The use of antibiotics and concepts of vascular reconstruction in World War II and Korea wars escalates the role and positive outcomes of treatment of musculoskeletal/extremity injuries specially when it comes to limb saving and minimizing comorbidities. Currently, with modern advances in trauma resuscitation and evacuation, microvascular tissue transfer, and fracture fixation, severe traumatic extremity injuries that would historically have been amputated are often salvaged; lots of mangled extremity, limb with an injury to at least three out of four systems (soft tissue, bone, nerves, and vessels) have been saved and reconstructed. (8,9,10)

Unsolved problem in orthopedics continues until now, how to reduce the injuries in the field, as they are representing a significant load on the medical system. But the magnitude of the problem has led to the development of guidelines for the management musculoskeletal injuries during wars and disasters with collaboration of different stakeholders like World Health Organization Emergency Medical Team (WHO EMT Secretariat), International Committee of the Red Cross (ICRC; Geneva, Switzerland) and leading experts from other stakeholder non-governmental organizations (NGOs). (8,10,13)

Mechanism of musculoskeletal injuries during wars and conflicts

The possibility of blunt traumas including road traffic crushes, collapsed buildings and falls, Explosions and anti-tank mines, beatings should be undermined during wars and specially in armed conflicts. (8)

The commonest wounding agent in most modern combat is the fragment, whose non-aerodynamic irregular shape causes ballistic instability, with an early transfer of kinetic energy. All fragment injuries have the same wounding profile: a cone of tissue destruction which is greatest at the surface. (8)

Primary blast waves produce a significant transfer of kinetic energy that can avulse soft tissues and open up fascial planes allowing severe contamination by fragments and other foreign matter. The wound resembles a mass of poorly vascularized edematous tissue and foreign debris. Infection and compartment syndrome are significant occurrences. These wounds are more severe than those caused by simple fragment penetration incurred beyond the primary blast effect. (10)

Clinical examination, identifying the presence of hematoma and oedema, allows the surgeon to differentiate the high energy fragment blast wound from a low-energy simple fragment injury.
Mangled limbs and traumatic amputations in war wounds are almost exclusively seen with primary blast injury. Anti-personnel landmines cause a particular type of proximity blast trauma. (10)

Bullets produce wounds of very different shapes. Each specific bullet exhibits a unique wounding profile, which

also differs according to the bullet's velocity at impact. Whether there is an exit wound and at what stage of the wounding channel the exit takes place play significant roles in determining the size and shape of the lesion. (10,12)

Management of war wounds

Three observable phenomena occur when a bullet/a projectile hits tissues. First, tissue is crushed by the projectile as it passes through, leading to a localized area of cell necrosis that is proportional to the size of the projectile. This area of the projectile's path is called the permanent track or permanent cavity There is a second area in which elastic tissue is stretched, causing a temporary cavity. The stretch results from an expansile displacement of tissue that occurs after the passage of the projectile. There is a transient increase in pressure of 4 to 6 atmospheres (atm) for a few milliseconds' duration. This transient lateral displacement of elastic tissue, such as skeletal muscle, vessels, and nerves, appears as blunt trauma which may recover earlier, whereas inelastic tissue, such as bone, may fracture. A third component, known as the shock wave, is a pressure wave that travels at the speed of sound preceding

the bullet in tissue. This pressure wave is only a few microseconds, but may generate pressures up to 100 atm in magnitude. The shock wave has not been shown to cause tissue injury. The basic management of this war wounds starts with through clinical evaluation, and proper documentation followed by standard imaging or radiography. (8,10)

There are so many factors that determine the final outcome of war wounds: the actual injury including the severity of tissue damage and the anatomic structures involved, the general condition of the patient including nutritional status, dehydration, concomitant diseases, host resistance, pre-hospital care like protection, shelter, first aid, triage, evacuation time, resuscitation, hospital triage, surgery (timing and technique), post-operative nursing care, physiotherapy and rehabilitation. (8,13)

Ideally war wounds should be debrided within six hours of the injury and strictly recommended to stick to basic principles of wound debridement like; Stopping hemorrhage as soon as possible, make adequate skin incisions and fasciotomies, remove dead & severely contaminated tissues to prevent/control infection, be systematic (out- in or in-out), adequate irrigation (ideally NS, or treated water), leave the wound open, re-establish physiological function, handle gently and treat the tissues with respect, as always. There are other specific principles expected to be followed based on the specific injured tissues like the skin, subcutaneous tissue, fascia and aponeurotic injury, muscle injury. (13)

It is not difficult to differentiate which skin injury requires graft or flap but there are some indirect skin damages where there will be wider areas of subcutaneous degloving resulting massive necrosis of the overlying skin and subcutaneous tissues. The subcutaneous tissue has a poor blood supply and is sticky, easily holding heavy contamination, thus it should be excised generously; 2 – 3 cm all the way around the original traumatic wound. A Shredded fascia should be trimmed and extended as large amounts of damaged muscle may lie underneath a small hole in the fascia; wide and deep retraction to allow exposure of the complete depth of the wound and to prevent post-traumatic wound edema and development of subsequent compartment syndrome. There are some controversial aspects when treating muscle injuries that is identification of part of muscle tissue that needs to be excised. Dead muscle is ideal medium for development of clostridial infections so all muscle that is not healthy and red, that does not contract when pinched or bleed when cut, must be excised until healthy, contractile, bleeding muscle is found. Muscles that contract away from wound cavity should be retracted and inspected. The Use four Cs of muscle viability: Colour, Consistency, Contractility, and Capillary bleeding (Cir-

culation) are still very good clinical measures though might be very subjective and dependent on the function of the experience of the working surgeon. (13, 14)
The penetration depth of a projectile in bone and the effective transfer of kinetic energy depend on the degree of projectile retardation by the tissues: the "push" of the bullet versus the resistance of the bone. The main factors influencing the resistance are the ratio of hard cortical versus soft cancellous bone and the state of bone mineralization. Long bones of the limbs are heterogeneous. The diaphysis has a relatively thick wall that is dense and brittle and may be compared to a fluid-filled rigid-walled tube: bone marrow surrounded by cortical bone. Therefore, the boundary effect comes into play if the diaphysis is affected by the temporary cavity. Cavitation generates an increase of the hydraulic pressure in the marrow that spreads in all directions and fractures the bone, thus propelling bone fragments in the direction of the travelling projectile and in the opposite direction. Due to all mentioned illustrations and the rest, it is strongly recommended in changing of mind settings of the surgeon when treating extremity war wounds and injuries. (8,13,14)

Here is the summary of Principles/steps of treatment of war wounds with fractures: (8,15)
- Focus and treat the wound first! Wound…wound…. wound… finally fracture.
-Transformation of contaminated war wound into clean one
-Reduction & immobilization fracture at initial debridement by simplest & least invasive method (Pop, Splints, traction and may be externa fixation)
-Transformation of clean wound with pen fracture into closed (Delayed Primary Closure or the next lower and simple levels from the soft tissue reconstruction ladder)
-Definitive method of immobilization decided at Delayed primary closure or when the wound is declared clean and less prone for infection)
-Restoration of optimal physiological function (physiotherapy)
-when dealing with bones; be radical with bone, be conservative with periosteum.
-Avoid creating unnecessary bone gaps; If clean and stripped bare, the bone ends should not be cut back but laid down in the periosteal and muscle bed
when treating mangled extremities in war settings here are few important points to remember always:
-does it need immediate amputation,
-or can limb be salvaged, feasibility of limb salvage should be remembered; time, cost and ability to avoid complications
-documentation of every important issue (communication, photography)
-what should be done after initial stabilization
-Major areas of concern are: the skin, muscle, arteries, contamination and bone loss

Summary

Structured medical system including forward surgical team with the involvement of orthopedic surgeons maximizes the chance of survival war injured victims, minimizes complications from the injury and initiates proper treatment for musculoskeletal war wounds. Wounded soldiers and civilians from the battlefield must be simultaneously treated and moved through the evacuation chain effectively, the cascade of events which is proven to save lives and minimizes complications. Preponderance of limb wounds and injuries over any other body regions amongst survivors has been proven lots of times on many of historic major war events and armed conflicts but the trend looks increasing due to the use of different protective mechanisms for the rest of body regions. War wounds should be better debrided within six hours of the injury and strictly recommended to stick to basic principles of wound debridement followed by simplest and easy ways of immobilizations. Definitive treatment of bone and joint injuries should be planned at time of delayed primary closure or when soft tissue injuries are addressed and changed to a closed injury.

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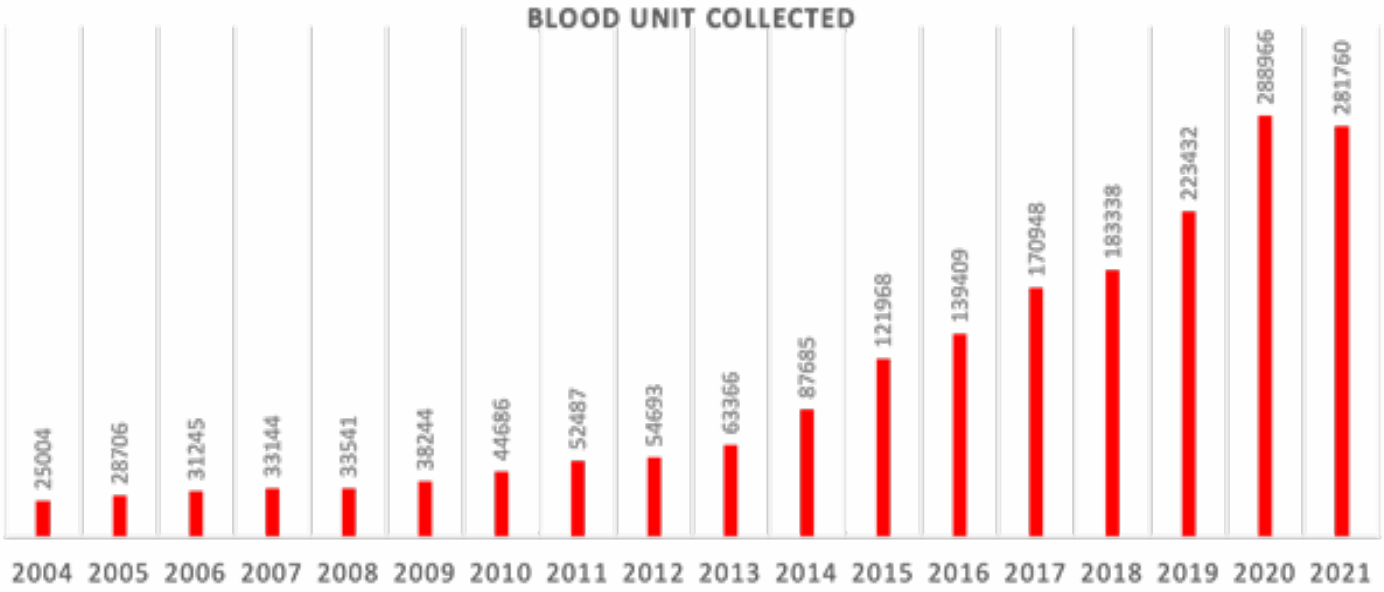
Blood Availability and safety During Disaster: The Ethiopian context

Availability, safety and delivery of blood and blood transfusion services transfusion is a major concern as well as a complex task in countries affected by humanitarian emergencies.

The National Blood Bank Services of Ethiopia was established in 1962e.c/1969G.c, by The Ethiopian Red Cross Society/ERCS/ with its central blood bank located at Addis Ababa, and eleven regional blood banks found in:Adama, Harar, Mekele, Gondar, Bahirdar, Dessie, Jimma, Yirgalem, Arbaminch, Diredawaand Jijiga.In 2004E.C/2012G.C, it shifted from Ethiopian Red Cross Society National Blood Bank Services (ERCS-NBBS) to FMOH with a target to integrate the service to other health systems and to meet the demand of blood supply equitably. Currently there are 43 blood banks across the country categorized with three generations and central blood at Addis Ababa.The number of blood units collected and safety handling procedures are increasing time to time.
There are certain emergency situations labelled by the national blood bank which are important for mobilization for



blood collection and distribution of blood and blood products:

1. Urgent, unpredictable demand for blood involving mass casualties
- Natural disasters
- Large-scale accidents
- Conflict, war and acts of terrorism

2. Unpredicted disruption to blood collection
- Temporary loss of blood donors
- Temporary loss of staff
- Restrictions on blood collection activities.

3. Acute blood shortage
- Temporary inability to move blood stocks to required locations
- Rapid depletion of blood stocks in disaster situations resulting in lack of blood for other patients: e.g. obstetrics, surgery

Emergency preparedness, resilience and response

Developing a disaster plan is a multistep process that includes determining the need for blood products, routes of

communication, how to mobilize hospital staff, and how to procure more blood products. Once a plan is created, it should be practiced and improved upon, so flaws in the plan can be corrected and the best possible care for patients can be provided.

- Safety of blood donors and donated blood must not be compromised in an emergency situations
- Emergency preparedness and response requires a high level of coordination and planning
- Inclusion of blood transfusion services in national emergency planning team
- Organizing and enrolling of blood transfusion services emergency planning group is pivotal
- There should be plan for emergency blood transfusion services
- Mechanism for BTS to receive and provide information
- Clear lines of authority
- Defined roles and responsibilities
- Analysis of potential emergency situations
- Prediction of demands for blood in different kinds of emergency situation
- Strategies and plans in the event of:Adequate blood stocks to meet emergency needs, movement of blood stocks to affected areas and need for additional blood supplies

The emergency plan for blood transfusion services shall also include the following issues:

- Analysis of resources required/available
- Communications infrastructure
- Standard operating procedures
- Liaison with media
- Hospital emergency plans, including blood transfusion laboratories/blood banks

Emergency preparedness for blood transfusion services:

- Communication of plan to staff and partner organizations
- Training of blood donor staff and volunteers in roles, responsibilities and SOPs during emergency
- Simulations or rehearsals of implementation of emergency plan
- Identification and assessment of sites and planning for emergency blood donor sessions
- Emergency stocks of critical consumables and equipment, including blood collection bags, transportation boxes
- Emergency transportation system and supply chain
- Movement of staff and supplies to blood collection sites
- Transportation of donated blood from collection sites
- Transportation of screened, processed units to hospitals

Emergency response has also its own peculiar feature and steps

- Verification of emergency situation
- Notification of top management and relevant staff
- Collection of information and rapid assessment
- Communication with all stakeholders
- National emergency planning committee
- Health authorities
- Hospitals in affected regions
- Media
- Blood donor organizations

ORTHOPAEDICS TRAINING IN ETHIOPIA

Orthopedics in Ethiopia developed from the earlier General Surgery and had been considered as a unit in it. At some point an attempt had been made to establish a Department of Orthopedics with a specialist-teaching program by the late Prof. B.O. Barry at the then Princess Tsehay Memorial Hospital. Almost all orthopedic surgeons practicing in the country were expatriates mostly from the then socialist countries such as Cuba, Russia, etc. An Ethiopian Orthopedic surgeon was working in one of the Police Hospital at Asmara. Teaching in orthopedics in the under-graduate program of the then Gondar College of Medical Sciences in Gondar was given equal emphasis to that of surgery and the consultants from the former German Democratic Republic (GDR) were also rendering service in the Hospital of the College.

1985 -1987

Starting 1985 Volunteer Visiting Orthopedic Surgeons from Orthopedic Overseas (OO) branch of Health Volunteer Overseas (HVO) USA started to visit the Addis Ababa Faculty of Medicine, Department of Surgery for a short period mainly for 3 – 4 weeks to teach Orthopedics and Trauma Surgery to the General Surgeons, Surgical Residents, Interns, Medical students and other staffs. During these periods a study conducted revealed an urgent need for Orthopedic Surgeons in the country and a suggestion was made to begin a residency program in the field of Orthopedic Surgery in the Medical Faculty of Addis Ababa. It can be recalled that this was the time where there was huge burden of acute as well as chronic musculo- skeletal war related sequel in addition to the prevailing Orthopedic & Trauma Conditions. A curriculum drafting was made with help of volunteers from the UK and USA, which has some similarity with that of the Bangladeshi Program. After approval by the University Senate Residency Training program in Orthopedic Surgery began.

1987 – 1991

In September 1987 G.C with the Funding of the British Overseas Development Agency (ODA) a separate Orthopedics Department was established and the first four Ethiopian Doctors started the four years residency training based on the admission criteria of the Faculty. The academic staffs were a professor from UK, a Scottish Honorary associate Professor who was a hand- Surgeon in ALERT Hospital, an Indian orthopedic Surgeon with a Rank of Assistant Professor and rotating Volunteers from OO-USA.

The stated aims of the Department were:

1. Teaching of orthopedic Residents, General Surgical Residents and under graduate medical students. (All General Surgical Residents will do a rotation of 6 months -1 month in the 1st year, 2 months in the 2nd year and 3 month in the 3rd year of their 4 yrs of training- in the Department of orthopedic surgery, while under graduate medical students do a rotation of 2 weeks in their 1st clinical year and 1 week in the 2nd clinical year at the time of their surgical attachments.)
2. Research in the field of Orthopedic Surgery
3. Provision of a specialized high quality orthopedic care and Trauma Services and also play a leading role in the dissemination of orthopedic and trauma service to the country at large

On the following years because of unforeseen circumstances only few residents were accepted and out of the 1st four intakes only two successfully completed their training and graduated. The training program was plagued with different problems such as huge number of patients especially Trauma, lack of resources, shortage of staffs, lack of support etc. At the end of the 1st 4-year the ODA fund ceased and the Department was left with only one expatriate staff.

1992-2001

Donation was obtained for 2 years from USAID and also from the 2nd batch of graduates the Faculty employed two as an academic staff. The first curriculum was reviewed and the training was continued with only very few residents but the orthopedics in patient beds were raised from 48 to 67. After cessation of USAID fund the Department was left with the two inexperienced local staffs. After some negotiation volunteers from World Orthopedics Concern (WOC) and OO started to support in the training process. Additional to the challenges and problems stated above there was a plan to halt the training programs in some Departments of the faculty including in Orthopedics and to amalgamate the Department to Department of Surgery as a unit which was opposed by both Departments. According to the initial plan, by the end of 2000 the Department should have produced about 50 graduates, but the number of graduates were 18 out of which five left the country and two went to private practice.
At this period both the Department and the training program were at the verge of collapse and even some believed it was going to be closed. Thanks to the unreserved support of dedicated volunteers from WOC and OO, it has survived these hardest times.

2001 – 2010

With the government initiative the Addis Ababa University had launched Post-graduate expansion program in all its Faculties, Schools and Departments. In the Manpower plan of the Ministry of health, Orthopedic Surgeon was included at the level of referral Hospitals. The Department was assigned to train about 60 orthopedic surgeons within 5 years. Even though it was a very ambitious plan, It had created a good opportunity and was a step forward for the revival of the Department. The Department formulated 5 years strategic plan. The curriculum was revised for the 3rd time. One Cuban Professor of Orthopedic Surgery was employed on contractual basis for 2 yrs. Due to the low salary scale those staffs recruited from India and most from Ethiopia declined.

With the construction of the National Rehabilitation Center and incorporation of the Orthopedic Department into it had created a better working environment especially of the outpatient Services. The help of volunteers from the Australian Doctors for Africa (ADFA) had also enhanced the activity of the Department.

The introduction of SIGN system in the treatment of fractures had also greatly revolutionized the management of long bone and hip fractures and had very much improved bed turn over by reducing the bed occupancy in the Department.

2010 – 2022

The period after 2010 could be considered a period of relative success for orthopedics in Ethiopia. Within this period, the number of training centers has been increased significantly, most of the trainers being a product of Black lion hospital's orthopedics department. Additionally, several of the consultants did their subspecialty training and started to treat complex orthopedics problems. Another prominent development within this period was the start of fellowship programs, trauma fellowship program in Black Lion Hospital and pediatrics orthopedics in CURE hospital.

Current status and way forward

Currently, Orthopedics is considered one of the competitive fields, often times only top scorers joining the program. It is also being given due attention by stake holders as the need for orthopedics care has been vital, especially in recent years. However, almost all centers with orthopedics care are still mostly dependent on donations, significantly affecting the quality of their training. In the future, the plan is to increase the number of fellowship programs. And to this effect, some of the training centers are sending their staffs to subspecialize in different areas.

Foot note: the history up to 2010 is taken from Dr. Tezera Chakas Note on 2010 ESOT magazine

ET-Bionics- Building hopes with bionic Hands

Losing a hand is a highly traumatic experience affecting both the physical life and mental well being of a person. It is therefore vital to provide a prosthetic hand with similar functionality to the hand lost.The human hand is a very delicate and complex part of the body used every day in a wide range of tasks from performing heavier works to smaller gestures. Due to all factors playing a role in how amputees live their lives, recreating a human hand is a very demanding and challenging task. As many as 30% of amputees experience depression and/or anxiety as a result of not having the same capabilities and opportunities as before the amputation.

Since advanced prosthetic hands often come in at a price too high to reach a large part of the amputee / consumer base, the case is often that only the richest amputees are able to afford electric prosthetic devices, and are thus often limited to simpler, body-powered alternatives. These alternatives are often found to be lacking in features and resemblance when comparing to the more technologically advanced electric prosthetics. The purpose of this project is to design and develop a functional and semi-manufacturable prosthetic hand capable of meeting a set of required market features while also coming in at a cheaper market price than a set of competing prosthetic devices

Project ET-Bionics was established in the early February 2022. In collaboration between TAS Solution and Addis Ababa University Collage of Health School of medicine department of orthopedic and trauma, and prosthetic and orthotic unit.TAS (Technology Assisted Systems) Solutions is a start-up tech company based in Addis Ababa, Ethiopia.TAS solutions plc has previously worked on Permanent Impairment Rating(PIR) software new version 1.2 and Finder Web based App that has a high impact on a customer were to find a drag store, laboratory, diagnostic centers, hospitals and other related medical care providers directory . Now TAS solutions plc is on a virtue of providing a group of software's and smart medical devices suited for private and hospital usage.

Our product selection ranges from Medical Software development to upper extreme prosthetics. The necessary hardware components required to fit a smart prosthetic hand have been in development. These requirements surround both functional and aesthetic features specified in the project. Taking in to considerations the funstionalities, appropriate materials to be used, appearance and cost of the prosthesis the project will incorporate as much vital details as possible in the development process.

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The completed hand is ultimately assembled with a wide range of freedom movement in the fingers, which enables it to perform grasping and gripping various objects. The fingers were connected to the internal gear mechanism with a pair of rod connectors per finger. With the thumb compartment placed in a manner that ensured free movement of the racks without touching or interfering with them. The finished hand offers a higher degree of freedom along with a lower weight than many competitors on the current market, while also being one of the lightest. The disadvantages of the hand are visible in its limited aesthetics in some areas of the hand, as well as somewhat exposed vulnerability due to its open mechanisms.

The final market price of the product could not be estimated due to the fact that there are too many unknown factors involved to determine a final market price on the hand. The production cost is less than 50,000.00ETB, however estimated to be significantly lower than the measured competing prosthetic hands. The completed hand fulfills the required specifications and functions after undergoing a number of analyses conducted in order verify material strength and mechanism functionality. Further grip strength analyses and calculations were excluded from the study due to the limited available time, and fund. In the coming future the prosthetic hand will go through fine tuning of production , and will be fitted on users after getting the clear form Institutional IRB.

Bone Setter Associated Disability (BOSAD) study in Ethiopia: A facility based pilot Study

Mengistu G Mengesha*, Ephrem Gebrehana*, Sintayehu Bussa*, Claude Martin Jr**, Jim Harrison***

Background: Traditional Bone setters (TBS) remains one of the deeply rooted care givers for musculoskeletal (MSK) injury in resource limited countries including Ethiopia. The aim of this study is to assess the incidence of complications related with traditional bone setter management for MSK injury and the reasons for preference of TBS over modern orthopedic care.

Method: This is a prospective general cohort facility-based study on 230 patients with MSK injury and initially managed by TBS and then presented to Hawassa University Hospital from October 2020 to May 2021. Data were collected by a website prepared for this purpose and Data exported from the website and entered to SPSS 25 for cleaning and analysis. Descriptive statistics were done

Result: Nearly one third (29.1%) of the patients were children less than 15 years old, with median (Inter Quartile Range (IQR)) age of 25(±28) years, and 69.6% of them were males. More than 83% of the patients have formal education from primary school to diploma or above. Falling accident either from ground level or height was the major cause 143(62.2%) of trauma cases and approximately 57% of the injury involved non dominant extremity. Twenty-seven patients were having only soft tissue injury without fracture and among the fracture patients, open fracture constitute 11.7%. Regarding complication from TBS treatment, 62.6% of the patients were having complications including joint stiffness (35%), malunion and deformity (16.3%), non-union (6.3%), septic joint (10%) and missed compartment syndrome and wet gangrene 5% each, and 3 patients in hospital death. The main reasons for preference of TBS over the modern Orthopaedic care includes support by cultural believes (17.2%), being cheap (16.7%), pressure from friends and relatives (16.1%), easily accessibility and quick service account 12% each and fear of operation in 11.6%.

Conclusion: TBS is common and remain preferred practice in Ethiopia and associated with significant number of various complications including life and limb threatening complications. It needs to be studied nationally including the community based and anthropological study, then training and scope of practice for TBS should be prepared and delivered. The government and all stakeholders need to take urgent action to protect the pediatric patients from preventable complications related with TBS treatment for their MSK injuries.

Alem-Ketema Enat Hospital Outreach program

By Dr Geletaw Tessema, Arthroplasty and orthopedic trauma surgeon

It was my observation where many simple orthopedic cases were mismanaged at Merhabete Woreda while I was resident and went for a visit. I was concerned and wanted to contribute my part as a member of society.

Alem Ketema Enat hospital is a district hospital found in Northern Shoa, Merhabete Woreda,Alem Ketema town .It is 183 Km from Addis Ababa. The hospital was established by Karlheinz Böhm founder of Menschen für Menschen (Human for Human). The service was provided by general practitioners and more recently general surgeon are incorporated. Because of the poor socioeconomic background of the society, many of them cannot afford to come to Addis Ababa for treatment and are forced to live with their disabilities for life.

My voluntary orthopedic service started 10 years ago in collaboration with Alem Ketema Enat hospital administrators. It started small but as grown over the years. Patients were summoned from surrounding kebeles and woredas by different methods. As the number of people seeking the services increased over time I organized a team from Black Lion Hospital and we started to march together to help the society. The team managed neglected fractures, dislocation, contractures, congenital deformities and chronic bone infections.

The Campaign was carried out over a 3 days stay 3 to 4 times a year. Orthopedic implants and sets, transportation and accommodation were provided by the hospital. I used my own set and implants in cases where there were insufficient supplies from the hospital. In each outreach program the number patient that have been evaluated in outpatient department ranged from 250 to 500 and minor and major surgeries ranged from 20 to 30.

Orthopedic problems have become one of the leading cause of mortality and morbidity in the country. In addition to that, Lack of adequate orthopedic surgeons and shortage of orthopedic materials in the country makes the condition even worse. Absence of awareness and low socioeconomic status with the inaccessible service provision sites are also significant factors. And the fact that orthopedic injuries are currently more noticed in the productive age group of the population is a threat for the development of the country. As the number of patients, seeking the service currently is going past the line. It requires mobilization of more budget, human resource and consumables.

My recommendations: we Orthopedic Surgeons can arrange and lead regular outreach programs in different parts of the country, as this would lessen some of the burden encountered. We can also collaborate with Ethiopian Society of Orthopedics and Traumatology, and different International Orthopedic Organizations to tackle the existing threat. Prevention and management of orthopedic problems need to be prioritized at the level of Federal Ministry of Health.

Prevention and management of orthopedic problem needs to be one of the priority works at the level of Federal Minster of Health. Collaborating with Ethiopian Society of Orthopedics and Traumatology and different international orthopedic organizations would make the problems to be more tackled.

THE FIRST FEMALE ETHOPIAN ORTHOPAEDIC SURGEON:

Compiled by Dr. Alpha S

Dr. Woubalem Zewdie T/Medhin is the first and for over a decade, the only female orthopedic surgeon in Ethiopia and the second in Africa. After completing her secondary schooling, she headed to Cuba to study medicine. She obtained her medical degree in 19…/ .After coming back to her home country, she worked in debreziet/BISHOFTU and the then St.Pauls Hospital as a general practitioner. In 1990GC, she joined the orthopedic surgery residency program in at Addis Ababa University, Tikur Anbessa Hospital. Out of 7 applicants, she was one of 2 to get accepted. During her residency, her compassionate and caring nature is what her then colleagues remember most about her. She was a dedicated advocate for her patients. She completed her residency in 1994 and headed to Assela to serve. Following that, she joined the then Ethio-swedish Hospital. Eventually, she joined the orthopedic surgery department as a teaching staff.

During her years of service in the then newly established department, her colleagues remember her being bold and fearless. "When she was a department head, she once gave the then health minister a piece of her mind first thing in the morning, even before he made it into his office. All because the guest houses were guest teaching faculty was taken away from us (the department)". Her colleagues and students testify that she is a confident and fierce leader.

"I remember her operating on Saturdays, to minimize the waiting time for patients and to give the residents a chance to learn". She was a force to be reckoned with in the operating room as well. "She had gifted hands. Her surgeries were always so neat and clean"

During her 8 years as the department head, Dr.woubalem is remembered for being a passionate and dedicated leader. "if she believes in something, she has no problem speaking her mind, even if it's a minister".

When first started out as a general practitioner in the department, she used to keep a postal package with the secretary and tell her to give it to one of the foreigner residents. I later found out that he had his salary suspended and she was financially supporting him. I couldn't believe it. She has a soft kind heart..

Through composing this short bio, I got a chance to talk to people who have had the pleasure of working closely with Dr.woubalem. I heard stories about her told with love, respect and fondness in peoples voices; Stories about her kindness, her fearlessness. She has a legacy of strength, perseverance and grace.

Dr.woubalem is an inspiration to so many female orthopedic surgeons that came after her. But more importantly, she never let her gender become a limiting factor for her. She had the mental fortitude required to become a remarkable surgeon. She was a competent, compassionate and a dedicated orthopedic surgeon, and yes, she happens to be female but that isn't a decisive factor. The lesson for the rest of us is, love what you do and do it well. Don't let anything; including your gender becomes a mental barrier limiting you from becoming competent.


Watch later
Share
Info
WOW
WOMEN IN ORTHOPAEDICS WORLDWIDE
1993
1994
1995
ETHIOPIA
Woubalem Zewdie.
First Female Orthopedic Surgeon.

Dr.Woubalem (MD) Orthopedic surgeon, Pediatric orthopedic sub, AAU

1. How do you see the profession has progressed over the years? Did it meat your vision?
Answer: I would say it's far away from meeting it's true potential and my vision, but I'm happy with the overall progress regarding every aspect of the department such as research, teaching etc. i believe it has progressed very well

2. How do you think more women can be encouraged to join the specialty?
Answer: We have to increase awareness about the orthopedic department so more women can join, and help the orthopedic service that is in demand in Ethiopia.

3. What is the one most important thing a woman should know about before joining orthopedics?
Answer: That even though there is a reputation that it is a man's job, women can be successful in orthopedics and we need to change the narrative that they cannot. In addition to this, orthopedics is a rewarding profession because results on patients can be achieved rapidly.

4. For other females in the profession what's your advice about work- life harmony or balance?
Answer: I would say women have to give enough time to both their profession and their personal lives, including family. Planning ahead is something that helped me manage my time accordingly.

5. What memories can you share with us about the first time you joined and the last time before you leave?
Answer: I remember when I first joined the department was limited with only one ward, and without an OR day, but now we have our own building and the progression makes me happy. It was a struggle reaching the heights that we have.

6. We know orthopedic pediatrics in general and clubfoot specifically have been your passions, what is your vision for them in the future?
Answer: I want every child to have access to club foot treatment and I want to spread awareness that the treatment is available. In addition to it being treatable and the long term disability being preventable.I also want to de-stigmatize the negative perceptions that surround club foot in our country.

7. How are you feeling about retiring from orthopedics?
Answer: Retiring is bittersweet, because I have enjoyed working at the Black Lion Hospital these years, but I believe that it's time for those younger than me to pave their path in orthopedics.

8. Anything you would like to add?
Answer: I hope that the orthopedic department thrives in research, and expands in sub specialities. I would say continue and strengthen the ties with foreign organizations to help better our department. Things should improve for our staff, nurses and residents.

Dr. Nardos Worku (MD, FCS ECSA), MPH, Pediatric orthopedics sub

1.What inspired you to join Orthopedics first and then your sub-speciality?

Answer: In Medical School I developed interest in Orthopedics right after my Orthopedics surgery rotation when I was third year medical student. I observed the satisfaction of patients plus residents and consultants appeared to be enjoying their practice and I liked the hands-on aspect of surgery. But above all, I noticed the chance to make things better for patients with quick results. I was truly amazed when I saw patients admitted with fractures, standing and walking the next day after surgery. Later I followed my passion and joined Orthopedic residency program at TASH; a department with a team-like atmosphere and great mentors.

I remember it was during my first pediatric attachment at Cure Hospital that I decided to pursue the rest of my career helping kids and it was because of the inspirations I got from my mentors (Dr Rick,DrWubalem and all the other pediatric orthopedic surgeons) who were very dedicated to help kids. So after I finished my residency I immediately started my pediatric orthopedic fellowship training at Cure Hospital.

2. Sort of things did you consider when you joined your sub of interest and what do you advise for other who plan to sub?

Answer: I asked myself few questions before joining pediatric orthopedics subspecialty. Do I have a deep interest or fascination for pediatric orthopedics? Would I be satisfied clinically to care primarily for kids with bone problem? Am I interested in performing procedures associated with this subspecialty? And Yes was my answer to all the questions.

My advice for those who want to sub is do what you love and love what you do. The decision to pursue a specific subspecialty training should be made with adequate information about the subspecialty and you should give priority to your interest than financial advantage.

3. What approach do you advise orthopedic surgeons to follow if they want to study further?

Answer: Pursuing subspecialty training is a major career and life decision and should therefore be based up on your interest and goal and not primarily on excluding other career options. Ask yourself whether you truly want the specific subspecialty or you are thinking of joining the field because your friends have chosen it and the subspecialty is more popular.

Ask others who have subspecialized in the field or find a mentor in the area you are interested in. Different fellowships have unique requirement and expectations and it is valuable to have a guidance from someone who knows that particular system well.

Visit the particular institution if possible when you are interested in applying. This may provide you with additional information and perspective about your interest and qualifications for training.

Optimize your credentials and do well in your orthopedic residency program. Your overall performance evaluation in your residency and recommendations from your mentors may be the most influential part of your fellowship application.

4. What success and challenges have you achieved and faced over the short period of time since completing your fellowship?

Answer: I don't think I have accomplished a lot yet. In my view success is a process where challenges encourage

you to look at things from a different perspective so that you strive to find creative solutions. My dream was to be able to help kids despite many challenges and my job helps me to make a difference in their life. It is a wonderful experience to see a child who came to the clinic limping, using crutches or on wheelchair, finally leave with a happy smile and walking with confidence. I am always grateful to God that I am doing what I love and love what I am doing but I always tell myself there is always a room for improvement. I might consider doing procedures and surgeries solo with a good outcome, helping lots of kids with deformities and other bone problems and passing Pediatric Orthopedics FCS COSECSA exam as a small success.
Lack of instruments and equipment, children presenting late with graving complications and lack of community awareness about pediatric orthopedics were some of the challenges I encountered in the past few years.

5. How do you think women can be encouraged to join orthopedics and further their profession through sub-specialization?
Answer: Orthopedics is a male dominated field but nowadays we are seeing females joining the residency program. One of the challenges women faced when thinking of joining orthopedics is societal perception about the level of physical strength required to be an orthopedic surgeon. However, orthopedics is not about physical strength rather it is knowing about the techniques. Despite the wrong perception about women being a surgeon, women can achieve a lot if they gotsupport from their family, friends, colleagues, mentors and the society at large.
In my opinion work-life balance is important, finding professional and personal balance is the key. My advice for women who want to sub-specialize would be to approach your fellowship with the attitude that this will be 1-2 years of hard work, tons of new experiences, lots of learning and as a result, a fair amount of sacrifice. During your fellowship you will be pulled in many directions at work, on call and at home. Know this is for a finite period of time and that the experience you will have are going to be invaluable for the rest of your career.
For all the women out there, no matter what kind of difficulties or challenges you go through, never give up and surrender. Be determined and know anything is possible with hard work and perseverance. As the saying goes, life is not about waiting for the storms to pass. It is about learning how to dance in the rain.

6. What do you envision for your sub-specialties in the future?
Answer: To provide the highest quality of care, comprehensive and safe medical and surgical services for children with orthopedic problems, producing lots of highly qualified pediatric orthopedic surgeons who will be working in all four corners of the country, helping thousands of children, using latest and cutting-edge technology in newly opened pediatric orthopedics dedicated institutions and incorporating research protocols to improve our practice.

Dr. Netsanet Abebe (MD) Orthopedic surgeon, Pediatric orthopedics sub, SPMMC

1. What inspired you to join Orthopedics first and then your sub specialties?
Answer: My love for orthopedics is not something that instantly appeared after I joined a medical school. Rather it was a deeply rooted interest as a kid way before I knew what orthopedics is. I remember being interested in deformities of kids that I see on the streets and asking my parents some questions about it. This desire took its own path as I started to see orthopedic patients as an undergraduate student. At the end of my undergraduate training, I was sure that I will

pursue orthopedic surgery. If I can name one person who inspired me more is Dr Zegene, who has been my teacher since my second clinical year. He is a dedicated teacher and an orthopedic surgeon who taught me a lot.

2. What sort of things did you consider when you joined your sub of interest and what do you advise for other who plan to sub?
Answer: The three top things I considered was my interest, the right timing and the place of subspecializtion.I love working with kids and dealing with pediatrics problems. Once I become sure of that, I already knew the best people and hospital that could achieve that objective ,which is Cure Hospital.

My advise is to go with the subspeciality that interest them the most. Anybody can join one subspeciality and may do well with it. The most important thing for me is to love and be happy in what you do.The other point is to know the future prospect of of the subspeciality you want to join. It is better to choose an area where you can give and will not go into a decline.

3. What approaches do you advise orthopedic surgeons to follow if they want to study further?
Answer: Let them take their time, expose themselves to all the subs and select their top area of interests. Don not rush into decision and be open minded.I also advise to talk to seniors or mentors (if you have one).After deciding on that, looking for different opportunities is a necessity . There are limited opportunities for the rapidly growing numbers of orthopedic surgeons.Since most sub-specialities are not accessible in our country ,making good connections with the right people inside our country and abroad is mandatory.

4. What success and challenges have you achieved or faced over the short period of time since completing your fellowships?
Answer: There are handful of problems in developing countries like ours. Absence of orthopedic instruments and implants are the most important problems faced. Most of our hospitals are congested ,making it difficult to fully engage in helping our patients.

5. How do you think women can be encouraged to join orthopedics and to further their profession through sub-specializaion?
Answer: I think every body, whether men or women should be able to pursue what they love the most. If a woman thinks orthopedics is for her, there should be no obstacle that should stand before her. Women are by nature strong whether we know it or not. Being a wife or a mom requires a huge amount of strength and persistence. If you can be those things, there is noway that you can not be an orthopedic surgeon. I can not promise challenge free career but i can promise the joy of fulfilling your dream.
A woman who want to join orthopedics ,should be allowed to do so without considering her gender and without a word of discouragment.

6. What do you envision for your sub specialties in the future?
Answer: There is only one well equipped pediatric orthopedic center in our country which is loaded with number of patients and trying its best to produce more pediatric orthopedic surgeons. What I really envision is to increase the number of orthopedic centers which deals with pediatric patients and give a very high quality service to Ethiopian kids. A pediatric orthopedics research and teaching centers are what I aspire to see.

Dr. Ananya Kassahun (MD,FCS ECSA), Orthopedic surgeon, UoG

1. What was your experience when you first joined UoG?

Answer: I had done my undergraduate studies at the University of Gondar and was familiar with the environment. Of course, the experience as a student and a teacher is different; the latter comes with even more responsibility. Overall it was an exciting but challenging experience.

2. What inspired you to establish the orthopedic department and a residency program?

Answer: Well, the university hospital caters to a large volume of trauma. It also has a large catchment population with various orthopedic problems. The surgical department used to manage those patients. It was obvious that there needed to be more orthopedic trained personnel to meet the demand. That's how the department and residency program came to be. It was the only long-term and sustainable solution to providing a quality and safe treatment.

3. What were the advantages you had and the challenges you faced through the process?

Answer: The environment was welcoming to the initiative; there was support at all levels of administration, which was advantageous. Any challenges that came along were learning opportunities.

4. What do you advise others who may be in a similar situation you were?

Answer: I think it is important not to fear challenges and to surround yourself with people who share the same vision. It is also worthwhile to take advice and learn from people who have already walked the path.

5. What future do you envision for Orthopedics at UoG?

Answer: I believe there is enormous growth potential. Even in this short period, the department has proven its capability to handle a mass causality and a large volume of war injuries. Like load makes bone stronger, such experiences have had similar effects on the department and the orthopedic practice.

6. How do you think more women could be encouraged to join the specialty and take on more leadership positions?

Answer: I think there is appreciable potential for mentorship. We have all had someone who inspired us to become surgeons. The same opportunity should be available to female medical students. And I think that's a duty we should take on.

Spine Care Unit at TASH: a collaborative initiative between Orthopedic Department & Neurosurgery

Division and of the AAU-CHS…Dr. Mersha A, Dr. Eskindir K, Dr. Tewodros A& Dr. Azarias K

Spine and spinal cord disorders are common conditions in our country affecting all ages and gender across. It includes all varieties of the diseases (congenital, infectious, trauma, degenerative, neoplasms and other metabolic conditions) affecting the spine and spinal cord in the face of inadequate facilities, trained spine surgeons and little experiences to address a huge problem.

So far the spine and spinal cord diseases are treated by neurosurgeons alone in our country which cannot cover all the spinal conditions, especially spine deformities and other advanced cases, which demand advanced skills training and also facilities on its own. Therefore to mitigate this challenge and address the gap of spine care service in the country, the neurosurgery division and orthopedic department wrote and signed a memorandum of understanding to establish and develop together a spine care unit in TASH. Accordingly, the unit established in January 2021 officially, contributing the available trained faculties, equipment and working spaces from their respective departments.

Currently the spine care unit has started giving services with once a week OPD, three ward beds (two for men, one for female), and two days per week operating table. The unit has basic spine sets to do lumbar and cervical surgeries for degenerative diseases, spine fixation set and C-arm fluoroscope to do thoraco-lumbar fixations for trauma as well as spine tumors. Over the last one year and six months we have been able to operate on 30 patients, and started to give conservative treatment for many childhood scoliosis.

Opportunities:

Both the neurosurgeons and orthopedists of the TASH are enthusiastic and willing to have spine care unit/ department which can give standard of care for their patients with a variety and myriad of spinal conditions. Therefore, staff members from both departments came together and established the spine care unit to serve as a corner stone for future development of spine care center/ center of excellence at large which will have advanced standard of care for the patients and a training programs of all for spine care.

The care unit started with already existing trained faculties and equipment developed in the neurosurgery division and interested fellows from orthopedic department, which will help as a spring board and facilitate further development while giving services.

There are a number of young interested orthopedist and neurosurgeons who would like to be spine surgeons and pursue as their job if they get opportunities for training.

Challenges:

Similar to other medical services in the country, spine care has many challenges, which includes lack of adequate facilities, high number and variety of patients with spinal conditions exceeding the available service, limited work space and OR table as it shares with the other orthopedic and neurosurgical services.

In particular, spine care is a demanding service requiring advanced gadgets, continuous expensive implant supplies and also needs after care other related services in place. Therefore, it needs optimistic work ahead to achieve the goal.

The way forward:

Considering our country's population and the surface area size, the level of medical care we have achieved so far for the spinal disease burden estimated, spine care in Ethiopia is not adequate or addressed enough, even

though we cannot say it is not existing or available. But when we see the care for some specific spinal conditions, like spine deformities due to congenital or acquired causes, neoplasms, etc. the service is not available. Therefore many patients are referred abroad or occasionally wait for campaign services which are rarely accessible for many unfortunate patients.

Hence, even though it requires a continuous and demanding work, developing a spine center / center of excellence which provide holistic care (preventive, treatment and rehabilitation) for the patients with spinal disorders is unquestionable importance. To achieve this, starting training of orthopedic and neurosurgeons on advanced spine care is the urgent step to be taken. In addition to this, training for adjunct staffs like rehabilitation, occupational therapist, and nurses for the OR and ward with special skill to care for patients with spinal conditions.
We also have to work with the stake holders to have the necessary equipment and continuous supply of implants and other consumables.

ESOT 15th AGM was fantastic!

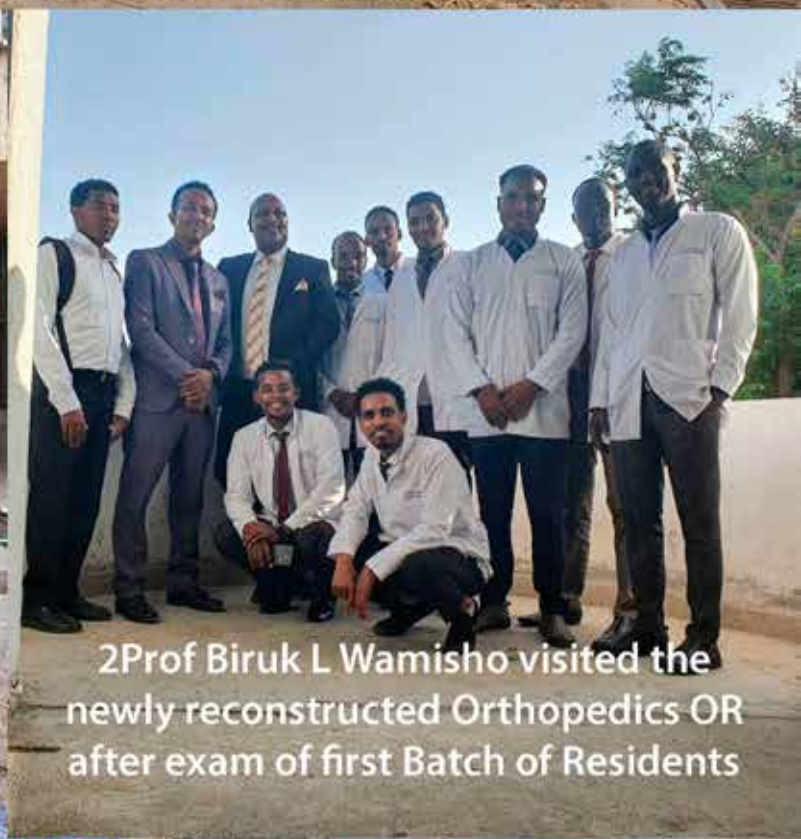
The great 22 of 2021!

Physiotherapy, Prosthesis and Orthosis are crucial pillars of Rehabilitation

"Ortho Surgeons planning with the Generals and treating the wounded at different institutions"

Modified Non -Operative fracture management course has been regularly delivered for interns in Hawassa in the first week of their Surgical attachment. This is a picture from the 16th Round

Team of Gambian orthopedic Surgeons and Data collectors visited Hawassa to start BOSAD research project in Gambia



2Prof Biruk L Wamisho visited the newly reconstructed Orthopedics OR after exam of first Batch of Residents

CURE mobile clinic was held at Hawassa between Aug 18 & 19

ESOT 16TH ANNUAL SCIENTIFIC CONFERENCE

AO ALLIANCE