

**POETIC MUHAS  
ANNUAL REPORT  
2023**

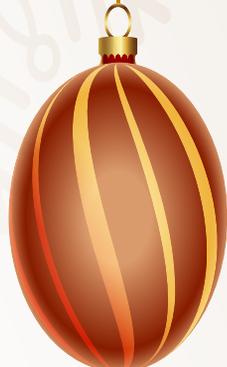
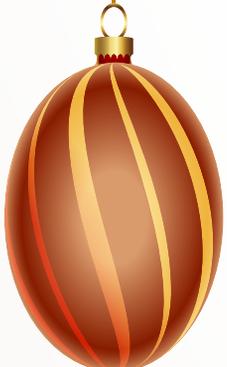


# SEASON'S GREETINGS FROM THE POETIC MUHAS TEAM!

As we bid farewell to 2023, the POETIC MUHAS team extends warm wishes for a Merry Christmas and Joyous New Year 2024.

We would like to thank MUHAS and all of our colleagues and collaborators for your unwavering support during 2023 that has been the driving force behind a year of remarkable growth, productivity and success.

We look forward to more collaboration in our shared mission to improve healthcare!



**Merry**  
**Christmas**  
& HAPPY NEW YEAR



**POETIC**  
Provision Of Essential Treatment In Critical Illness



## Dear Colleagues and Collaborators

We express our sincere appreciation for the invaluable contributions in the year 2023. Your commitment to excellence in education, research, and healthcare has underpinned the successful accomplishments of the POETIC MUHAS team during the year 2023.

Looking ahead to the coming year, we believe there are numerous points of intersection where our paths could converge for even more impactful collaborations in research initiatives, academic endeavors, policy engagement, and community participation. We are eager to explore these possibilities together and foster synergies that can make a meaningful difference.

In this POETIC MUHAS annual report, you will find a testament to the collaborative spirit and support we have received from MUHAS and from all of you, and we look forward to building on this foundation in the coming year 2024.

As we celebrate the holiday season, we extend our warmest wishes for joy, peace, and fulfillment to you and your loved ones. May the New Year bring forth new opportunities, continued success, and strengthened collaborations.

Thank you for being an integral part of our journey. Here's to a bright and collaborative future!

Warm Regards,  
**The POETIC MUHAS Team**



Tim  
Baker



Karima  
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Aneth  
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Elibariki  
Mkumbo



Elizabeth  
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Rafael  
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Happiness  
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# ABOUT POETIC MUHAS

**POETIC MUHAS** is a team of multi-disciplinary researchers under the Department of Emergency Medicine, located in the CHPE building (3rd floor) at MUHAS. Our work centers around Essential Emergency and Critical Care (EECC), the first-line, foundational care that should be provided to all critically ill patients in all hospitals in the world. We conduct evidence-based research, implementation, and advocacy work to improve the quality of care for critically ill patients in Tanzania and globally by means that are feasible and cost-effective.

This annual report summarizes the work accomplished by the POETIC MUHAS team in 2023.

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# RESEARCH PROJECTS

**We are involved in international, multi-centre research projects.**

- 1. APPRISE** (African Partnership for Peri-operative and Critical Care Research): This NIHR-funded project is focused on improving peri-operative and critical care in Africa. It involves four countries: Tanzania, South Africa, Uganda, and Ethiopia. The Tanzania arm of this project is led by the POETIC MUHAS team.  
Projects:
  - i. POETIC-Africa:** African Critical Illness Outcome Study (ACIOS). A prospective, multi-country, multi-centre, observational study to determine the hospital point-prevalence and mortality rates of adult patients with critical illness in acute hospitals in Africa
  - ii. 5Rs to Rescue:** A quality improvement and research project that aims to reduce post-operative mortality in Africa through '5RS': R-Risk assessment, R- Recognition, R- Response, R- Reassessment, R- Reflection.
  - iii. The Rule of Thumb:** A prospective, multi-center efficacy study of a bundled peri-operative care package to prevent and treat life-threatening intra- and postoperative maternal hemorrhage during or after caesarean section.
  - iv. Community Engagement and Involvement (CEI):** Investigating perspectives of critical illness from the community, critically ill patients, survivors and relatives.
- 2. Respiratory and Critical Illness Surveillance:** a hospital-based surveillance of patients with respiratory and critical illness producing real time vital information for emergency preparedness and response in Tanzania.
- 3. Oxygen and EECC:** A review project collating ongoing research, training courses, conferences, and activities on oxygen and on EECC across Africa.

# EECC NETWORKHUBS

1. **EECC Network Tanzania Hub:** Coordinating over 25 Tanzania doctors and nurses who have been to EECC Champions Workshops to receive intensive training in EECC with a common goal to implement EECC in hospitals in Tanzania to improve care for critically ill patients in hospitals and reduce preventable mortality.
2. **EECC Network Global Hub:** Coordinating 13 international health personnel to develop and increase awareness and implementation of EECC globally.

## COLLABORATIONS

We have collaborated with universities, non – governmental organizations and governments to improve the quality of care for critically ill patients.

1. Ministry of Health, Tanzania
2. PORALG, Tanzania
3. Ifakara Health Institute, Dar es Salaam, Tanzania
4. Management and Development for Health, Dar es Salaam, Tanzania
5. Center for Disease Prevention and Control Dar es Salaam, Tanzania
6. Queen Mary University of London, UK.
7. Karolinska Institutet, Stockholm, Sweden
8. Uppsala University, Uppsala, Sweden
9. Stanford University, USA
10. Institute of Healthcare Improvement, USA
11. Life Support Foundation, Sweden



Dr Wangeci Gatei (CDC), collaborating with POETIC MUHAS at the Respiratory and Critical illness Surveillance project dissemination meeting.

# FUNDERS

We have received funding from several organizations to ensure sustainability of our work.

1. National Institutes of Health Research, UK
2. Center for Disease Prevention and Control
3. Laerdal Foundation
4. Mahidol Oxford Tropical Medicine Research Unit
5. World Federation of Intensive and Critical Care
6. Association of Anaesthetists, UK

# PARTICIPATION IN CONFERENCES AND WORKSHOPS

*POETIC MUHAS team has held and attended workshops; local and international conferences to disseminate research findings share our experiences in panel discussions and learn from colleagues.*

1. 1st Essential Emergency and Critical Care Workshop in May 2023, Dar es Salaam.
2. 2nd Essential Emergency and Critical Care Workshop in September 2023, Dar es Salaam
3. The first Tanzania Association of Non-Physician Anaesthetists (TANPA) International Scientific Conference. 18th to 20th April 2023
4. Respiratory and Critical Illness Surveillance Dissemination Meeting at MUHAS 20th April 2023
5. American Thoracic Society 2023 International Conference, May 19–24, 2023 – Washington, DC
6. World Intensive and Critical Care Congress (WICC) in Istanbul. 26th to 30th August 2023 <https://wicc2023.org/>
7. MUHAS Annual Scientific Conference in Dar es Salaam.



8. InFACT/ISARIC/Unity Health Colloquium on the Lessons of COVID-19 for Global Acute Care. 4th to 7th October in Toronto, Canada.  
<https://unityhealth.to/2023/09/research-colloquium/>
9. Critical Care Congress in Gqeberha/Port Elizabeth, South Africa. 15th October.  
<https://criticalcare.org.za/event/save-the-date-ccssa-congress-2023/>
10. Tanzanian Ministry of Health's Reproductive, Maternal, Newborn, Child, And Adolescent Health Conference. 15th to 17th November in Dar es Salaam.  
<https://conference.moh.go.tz/>
11. 5th Tanzania Conference on Emergency Medicine in Zanzibar, Tanzania. 6th to 8th November. <http://www.tacem.or.tz/>
12. SCCM Conference (Society of Critical Care Medicine in the US). <https://www.sccm.org/Annual-Congress/Program>
13. EICC: Strengthening Critical Care Systems Globally with the Nigerian Society of Anaesthetists (WEBINAR).

## PUBLICATIONS

*In 2023, we have published 18 publications in international peer-reviewed literature*

1. Mkumbo E et al, (2023) Health Care Workers' Experiences of Calling for Help When Taking Care Of Critically Ill Patients In Hospitals In Tanzania And Kenya.
2. Research Square. <https://assets.researchsquare.com/files/rs-2883574/v1/3d83762e-4cd6-4206-887d-474bf3f47a3d.pdf?c=1683923307>
3. Shah H, et al, (2023) Cost-effectiveness of strategies for caring for critically ill patients with COVID-19 in Tanzania. *PharmacoEconomics*, Vol 7 :537–552  
<https://link.springer.com/article/10.1007/s41669-023-00418-x>
4. Khalid K, et al, (2023) Hospital readiness for the provision of care to critically ill patients in Tanzania - an in-depth cross-sectional study. *ResearchSquare*  
<https://doi.org/10.21203/rs.3.rs-2756348/v1>
5. Gundo R, et al, (2023) Doctors' experiences of referring and admitting patients to the intensive care unit: a qualitative study of doctors' practices at two tertiary hospitals in Malawi. *BMJ*, Vol 13, Issue (4). <https://bmjopen.bmj.com/content/13/4/e066620>
6. The Global Acute Care Advocacy Authors, (2023) The World Health Assembly resolution on integrated emergency, critical, and operative care for universal health coverage and protection from health emergencies: a golden opportunity to attenuate the global burden of acute and critical illness. *SpringerLink*, Vol 49:1223–1225 <https://doi.org/10.1007/s00134-023-07176-8>
7. Mboya E, et al, (2023) Critical illness at the emergency department of a Tanzania national hospital in a three-year period 2019–2021. *BMC Emergency Medicine*, Vol 23 <https://doi.org/10.1186/s12873-023-00858-y>

8. Schell C, et al, (2023) The burden of critical illness among adults in a Swedish region—a population-based point-prevalence study. *European Journal of medical research*, Vol 28:322 <https://eurjmedres.biomedcentral.com/articles/10.1186/s40001-023-01279-0#>
9. English M, et al, (2023) Hospital care for critical illness in low-resource settings: lessons learned during the COVID-19 pandemic. *BMJ Global Health*, Vol 8, Issue <https://gh.bmj.com/content/8/11/e013407>
10. Spencer S, et al (2023). A health systems approach to critical care delivery in low-resource settings: a narrative review. *SpringerLink*, Vol 49, 772 – 784 <https://link.springer.com/article/10.1007/s00134-023-07136-2>
11. Oliwa J, et al, (2023). Policies and resources for strengthening of emergency and critical care services in the context of the global COVID-19 pandemic in Kenya. *PLOS Global Public health* <https://journals.plos.org/globalpublichealth/article?id=10.1371/journal.pgph.0000483>
12. Crawford A, et al, (2023). Global Critical Care: A Call to Action. *BMC Critical-Care*, Vol 27:28 <https://ccforum.biomedcentral.com/articles/10.1186/s13054-022-04296-3>
13. Guinness L, et al, (2023). Essential Emergency and Critical Care (EECC) as a health system response to critical illness and the COVID19 pandemic: What does it cost? *BMC Cost effectiveness and resource allocation*, Vol 21:15. [s12962-023-00425-z.pdf](https://doi.org/10.1186/s12962-023-00425-z.pdf)
14. Mkumbo E, et al, (2023) Same label, different patients: health-workers' understanding about critical illness. *Frontiers*, Vol 3 <https://www.frontiersin.org/articles/10.3389/frhs.2023.1105078/full>
15. Manji Z, et al, (2023). Historical Overview of Critical Care Nursing in Tanzania Culminating in its First Inaugural Conference in Tandem with the Sixth Conference of the African Federation of Critical Care Nurses. *World federation of Critical Care Nurses*, Vol 16, Issue (3) <https://wfccn-ijcc.com/index.php/ijcc/article/view/56>
16. Willows T, et al, (2023), COVID-19 and unintended steps towards further equity in global health research. *BMJ Global Health*, Vol 8. <https://gh.bmj.com/content/8/6/e011888.long>.
17. Dessap A, et al, (2023). Technical innovation in Critical Care in a World of Constraints: Lessons from the COVID-19 Pandemic. *American Journal of Respiratory and Critical Care Medicine*, Vol 207, Issue (9). <https://pubmed.ncbi.nlm.nih.gov/36716353/>

# DISSEMINATION BRIEF

A dissemination brief derived from the Respiratory and Critical Illness Surveillance Project findings informed policy makers and other stakeholders about the importance of surveillance for detecting early warning of case-surges, to detect outbreaks and emergencies, to prepare resources and responses and for improving care in hospitals throughout Tanzania.



# CAPACITY BUILDING SESSIONS.

Through 2023 we conducted weekly capacity building sessions to enhance research skills, soft and hard skills to all team members, so that we can enhance output and every member is capacitated to perform to the best of their capabilities. Topics included:

1. Stata Courses
2. Journal club
3. Research methodologies
4. Policy Brief writing
5. Manuscript writing
6. Journal Selection
7. Organization and time management



# EECC LEARNING COURSES/TRAINING

We have successfully launched an online course that offers free CME/CPD from Stanford University for both physicians and nurses, we have also conducted 6 presentations in Tanzania mainland and Zanzibar on EECC to health workers.

1. The EECC Network, in collaboration with the Learning Resource Centre at Stanford University, has developed online EECC Training <https://ecccnetwork.org/#training>.
2. EECC at the Neurocritical care course in Mbeya Zonal Referral Hospital, Tanzania.
3. EECC presentation at MOI in collaboration with Pioneers of Neuroscience Nursing Tanzania.
4. EECC presentation at Mnazi Mmoja hospital in the continuous nursing education.
5. EECC presentation at CCBRT Hospital, Dar es Salaam.
6. EECC presentation to the Anaesthesia Senior residents.
7. EECC presentation to the undergraduate students (MD4).

# MENTORSHIP PROGRAM

We have two Anesthesia residents mentored by senior members in the POETIC team, guiding them through creating impactful research and career mentorship. Mentorship and supervision are conducted in the team for one PhD student at MUHAS, Dr. Karima Khalid, and three international PhD students – Dr Carl Otto Schell and Dr Anna Hvarfner at Karolinska Institute, and Federica Mangini at University of Cape Town.

# APPRECIATION

We extend heartfelt appreciation to the MUHAS administrative leadership and to all partners for the collaboration and support we've shared in the year 2023. Special thanks to Dr Linda Mlunde for her fantastic work in the team during 2023.

Looking ahead to 2024, with the spirit of shared goals, we are enthusiastic about the prospect of further collaborations and strengthening of our partnership in research, advocacy, academia and health care implementation.

We humbly extend an invitation to colleagues who share our belief in the alignment with theirs, offering prospects for collaboration and the charting of a course towards future successes together. Your expertise and perspective will undoubtedly enhance the collaborative process, contributing to the success of initiatives that align with our mutual objectives and have a lasting impact on global public health.



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