

Publications

Key publications

[Cost-effectiveness of strategies for caring for critically ill patients with COVID-19 in Tanzania](#) Shah, H.A., Baker, T., Schell, C.O. et al. *PharmacoEconomics* Open (2023).

[Essential Emergency and Critical Care: A Priority for Health Systems Globally.](#) Buowari DY, Owoo C, Gupta L, Schell CO, Baker T. *Crit Care Clin.* 2022 Oct 1;38(4):639–56.

[Essential Emergency and Critical Care – a consensus among global clinical experts.](#) Schell CO, Khalid K, Wharton-Smith A, Oliwa J., Sawe H, Roy N, Sanga A, Marshall JC., Rylance J, Hanson C, Kayambankadzanja RK, Jirwe M, Baker, T. *BMJ Glob Health.* 2021 Sep;6(9):e006585.

[Essential care of critical illness must not be forgotten in the COVID-19 pandemic.](#) Baker T, Schell CO, Petersen DB, Sawe H, Khalid K, Mndolo S, Rylance J, McAuley DF, Roy N, Marshall J, Wallis L, Molyneux E. *The Lancet.* 2020 Apr 18;395(10232):1253-1254

[The global need for essential emergency and critical care.](#) Schell CO, Gerdin Wärnberg M, Hvarfner A, Höög A, Baker U, Castegren M, Baker T. *Critical Care.* Oct.2018; 22(1): 284.

Articles about EECC

Essential Emergency and Critical Care, Schell CO, Khalid K, Baker T, in [Hospitals in Health Systems : Opportunities for Efficient, High-quality, and Integrated Care \(English\)](#), pp. 169-177. Chopra M; Hou X; Nimako KT, Roder-Dewan, S. Washington, D.C.: World Bank Group (2024).

[Health care workers' experiences of calling-for-help when taking care of critically ill patients in hospitals in Tanzania and Kenya.](#) Mkumbo, E.G., Willows, T.M., Odongo Onyango, O. et al. *BMC Health Serv Res* 24, 821 (2024).

[Capability to identify and manage critical conditions: effects of an interprofessional training intervention.](#) Santesson, I., Schell, C.O. & Bjurling-Sjöberg, P. *BMC Med Educ* 24, 584 (2024).

[Improving The Care of Critically Ill Patients: Lessons Learned from The Promotion of Essential Emergency and Critical Care In Tanzania: A Qualitative Study.](#) Kaliza A, Mlunde L, Schell CO, Khalid K, Sawe H et al. medRxiv 2024.05.24.24307887

[The hospital burden of critical illness across global settings: a point-prevalence and cohort study in Malawi, Sri Lanka and Sweden.](#) Otto Schell, Raphael Kayambankadzanja, Abigail Beane, Andreas Wellhagen, *et al.* PREPRINT. medRxiv 2024.03.14.24304275

[Critical Care Beyond the ICU – What Is Essential?](#) Muzuka A, Kaliza A, Moll V. *ASA Monitor* March 2024, Vol 88, 20-21.

[Hospital readiness for the provision of care to critically ill patients in Tanzania– an in-depth cross-sectional study.](#) Khalid, K., Schell, C.O., Oliwa, J. *et al.* *BMC Health Serv Res* **24**, 182 (2024).

[Strategies for Oxygen Ecosystems in Middle-Income Countries: A Review and Case Study from Lebanon.](#) Tim Baker, Claudio Gatti, Guido Rossini *et al.*, *Emergency Medicine International*, vol. 2024, Article ID 9964636, 8 pages, 2024.

[The burden of critical illness among adults in a Swedish region—a population-based point-prevalence study.](#) Schell, C.O., Wellhagen, A., Lipcsey, M. *et al.* *Eur J Med Res* **28**, 322 (2023).

[Critical illness at the emergency department of a Tanzanian national hospital in a three-year period 2019–2021](#) Mboya, E.A., Ndumwa, H.P., Amani, D.E. *et al.* *BMC Emerg Med* **23**, 86 (2023).

[A health systems approach to critical care delivery in low-resource settings: a narrative review](#) Spencer, S.A., Adipa, F.E., Baker, T. *et al.* *Intensive Care Med* **49**, 772–784 (2023).

[Essential Emergency and Critical Care as a health system response to critical illness and the COVID19 pandemic: What does it cost?](#) Guinness L, Kairu A, Kuwawenaruwa A, Khalid K, Awadh K, Were V, *et al.* *Cost Effectiveness and Resource Allocation*. 2023;21(1):15.

[Same label, different patients: health-workers’ understanding of the label ‘critical illness’.](#) Mkumbo E, Mulenga Willows T, Onyango O, Khalid K, Maiba J, Schell CO, Oliwa J, McKnight J, Baker T. *Frontiers of Health Services* 2023; 3.

[Global Critical Care: A Call to Action.](#) Crawford AM, Shiferaw AA, Ntambwe P, Milan AO, Khalid K, Rubio R, Nizeyimana F, Ariza F, Mohammed AD, Baker T, Banguti PR, Madzimbamuto F. *Critical Care* 2023;27(1):28.

[Essential Emergency and Critical Care: Improving the care of all critically ill patients worldwide.](#) Ntogwiachu D, Baker T. *World Anaesthesia News*. 2022;July 22(1):6-9.

[Resource use, availability and cost in the provision of critical care in Tanzania: a systematic review.](#) Kazibwe J, Shah HA, Kuwawenaruwa A, Schell CO, Khalid K, Tran PB, Ghosh S, Baker T, Guinness L., *BMJ open*. 2022;12(11):e060422.

[Towards definitions of critical illness and critical care using concept analysis.](#) Kayambankadzanja R., Schell CO, Wärnberg MG, Tamras T, Mollazadegan H, Holmberg M, Molsted Alvesson H. & Baker T. *BMJ Open* 2022, 12(9), e060972.

[The State of Critical Care Provision in Low-Resource Environments.](#) Biccand BM, Baker T, Mabedi D, Waweru-Siika W. *Anesthesia and Analgesia*. 2022;134(5):926-9

[Unmet need of essential treatments for critical illness in Malawi](#)

Kayambankadzanja RK, Schell CO, Mbingwani I, Mndolo SK, Castegren M, Baker T.. *PLoS One*. 2021 Sep 10;16(9):e0256361.

[Oxygen provision to severely ill COVID-19 patients at the peak of the 2020 pandemic in a Swedish district hospital: medical records-based cohort study.](#)

Hvarfner A, AIDjaber A, Ekstrom H, Enarsson M, Castegren M, Baker T, Schell CO. *PLoS One*. 2022 Jan 20;17(1):e0249984.

[Emergency and critical care services in Malawi: Findings from a nationwide survey of health facilities.](#)

Kayambankadzanja RK, Likaka A, Mndolo SK, Chatsika GS, Umar E, Baker T. *Malawi Medical Journal* 2020; 32(1): 259-63.

[Vital Signs Directed Therapy for the critically ill: improved adherence to the treatment protocol two years after implementation in an intensive care unit in Tanzania.](#)

Hvarfner A, Blixt J, Schell CO, Castegren M, Lugazia E, Mulungu M, Litorp H, Baker T. *Emergency Medicine International*. 2020: 6.

[Global Critical Care: add essentials to the roadmap.](#)

Schell CO, Beane A, Kazidule R, Khalid K, Haniffa R, Baker T. *Annals of Global Health*. 2019; 85(1):97 *Globalization and Health*. 2016;12(1):7.

[Vital Signs Directed Therapy: Improving Care in an Intensive Care Unit in a Low-Income Country.](#)

Baker T, Schell CO, Lugazia E, Blixt J, Mulungu M, Castegren M, Eriksen J, Konrad D. *PLoS One*. 2015 Dec 22;10(12):e0144801.

[Single Deranged Physiologic Parameters Are Associated With Mortality in a Low-Income Country.](#)

Baker T, Blixt J, Lugazia E, et al. *Critical Care Medicine*. 2015;43(10):2171-2179

[Severely deranged vital signs as triggers for acute treatment modifications on an intensive care unit in a low-income country.](#)

Schell CO, Castegren M, Lugazia E, Blixt J, Mulungu M, Konrad D, Baker T. *BMC Research Notes*. 2015;8:313

[Critical illness in developing countries: dying in the dark.](#)

Baker T, Schultz MJ, Dünser MW. *The Lancet* 2011 Apr 23;377(9775) (Corr)

Articles of interest

[An Oxygen Supply Is Not Enough: A Qualitative Analysis of a Pressure Swing Adsorption Oxygen Plant Program in Ethiopian Hospitals.](#)

Smith V, Changoor A, Rummage S et al. *Global Health: Science and Practice* Aug 2024, 12 (4) e2300515.

[Etiology of hospital mortality in children living in low- and middle-income countries: a systematic review and meta analysis.](#)

Teresa Kortz et al. *Frontiers in Pediatrics* 2024;12;2296-2360.

[The Acute Respiratory Intervention StudiEs in Africa \(ARISE-AFRICA\) study PROTOCOL.](#) Kwizera A, Kabatoro D, Owachi D, *et al. BMJ Open* 2024;**14**:e082223.

[Improving effective coverage of medical-oxygen services for neonates and children in health facilities in Uganda: a before–after intervention study](#) Graham, Hamish R *et al. The Lancet Global Health*, Volume 12, Issue 9, e1506 - e1516

[Family supplemented patient monitoring after surgery \(SMARTER\): a pilot stepped-wedge cluster-randomised trial.](#) Hewitt-Smith, Adam *et al. British Journal of Anaesthesia*, Volume 0, Issue 0

[Long-term outcomes and associated factors among intensive care unit survivors in a low-income country: a multicenter prospective cohort study.](#) Matovu, H.W., Sendagire, C., Luggya, T.S. *et al. BMC Res Notes* **17**, 215 (2024).

[Care of the critically ill begins in the emergency medicine setting.](#) The Critical Care in Emergency Medicine Interest Group. *European Journal of Emergency Medicine* 31(3):p 165-168, June 2024.

[Outcomes after surgery for children in Africa \(ASOS-Paeds\): a 14-day prospective observational cohort study.](#) Torborg, Alexandra *et al. The Lancet*, Volume 403, Issue 10435, 1482 – 1492.

[Boarding in the emergency department: challenges and mitigation strategies.](#) da Silva Ramos, Fernando J, Freitas, Flavio G.R, Machado, Flavia R. *Current Opinion in Critical Care*, March 2024.

[The Critical Care Anesthesiologist Outside the ICU](#) Hoyler M, Deshpande R, Moll V, Kaufman M. *ASA Monitor* April 2024, Vol. 88, 17–18.

[Critical Foundations of Care – Global Assumptions Harm Critically Ill Patients.](#) Crawford A, Sheyo N. *ASA Monitor* March 2024, Vol 88, 15-16.

[General ward nurses detection and response to clinical deterioration in three hospitals at the Kenyan coast: a convergent parallel mixed methods study.](#) Mbuthia, N., Kagwanja, N., Ngari, M. *et al. BMC Nurs* **23**, 143 (2024).

[The Global Anesthesia Workforce Survey: Updates and Trends in the Anesthesia Workforce.](#) Law, Tyler J., Lipnick, Michael S., Morriss, Wayne, Gelb, Adrian W. *et al. Anesthesia & Analgesia*, ():10.1213/ANE.0000000000006836, March 12, 2024.

[Developing Emergency, Critical and Operative Care \(ECO\) Services in Ethiopia—A Public Health Priority.](#) Sultan, M., & Laytin, A. *Pan African Journal of Emergency Medicine and Critical Care*, 2(1) 2024.

[Implementation of a fast triage score for patients arriving to a low resource hospital in Uganda.](#) Jjukira Vianney, Immaculate Nakitende, Joan Nabiryo *et al. African Journal of Emergency Medicine* 14,:1:2024, p45-50,

[The initiative for medical equity and global health \(IMEGH\) resuscitation training program: A model for resuscitation training courses in Africa.](#) E Tuyishime, A Irakoze, C Seneza *et al. African Journal of Emergency Medicine*,14:1:2024, p33-37

[Emergency care capacity in Sierra Leone: A multicentre analysis](#), Z Bredow, Z Corbett, M Mohamed *et al.* *African Journal of Emergency Medicine* 14:1:2024, p58-64.

[Receive, Sustain, and Flow: A simple heuristic for facilitating the identification and treatment of critically ill patients during their hospital journeys](#). McKnight J, Willows TM, Oliwa J, *et al.* *J Glob Health*. 2023 Dec 22;13:04139.

[Third delay in care of critically ill patients: a qualitative investigation of public hospitals in Kenya](#). Onyango OO, Willows TM, McKnight J, *et al.* *BMJ Open* 2024;14:e072341.

[Critical care in sub-Saharan Africa, where are we? A review](#). Tobi, Kingsley Ufuoma; Ogunbiyi, Obashina A. *Journal of the West African college of surgeons* 14(1):p 1-4, January-March 2024.

[Critical care delivery across health care systems in low-income and low-middle-income country settings: A systematic review](#). Bartlett ES, Lim A, Kivlehan S, Losonczy LI *et al.* *J Glob Health*. 2023 Dec 1;13:04141.

[Critical care capacity and care bundles on medical wards in Malawi: a cross-sectional study](#). Connolly, E., Kasomekera, N., Sonenthal, P.D. *et al.* *BMC Health Serv Res* 23, 1062 (2023).

[Hospital care for critical illness in low-resource settings: lessons learned during the COVID-19 pandemic](#). English M, Oliwa J, Khalid K, *et al.* *BMJ Global Health* 2023;8:e013407.

[Development and delivery of a higher diploma in emergency medicine and critical care for clinical officers in Kenya](#). Peter Halestrap, David Aliba, George Otieno, B. Jason Brotherton, Hannah W. Gitura, Jonathan E. Matson, Burton W. Lee, Evelyn Mbugua. *African Journal of Emergency Medicine* 13; 4; 225-229 (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](#). The Global Acute Care Advocacy Authors. *Intensive Care Med* (2023).

Shimber ET. [How to Establish and Expand an Intensive Care Unit in a Low- and Middle-Income Country](#). In: Hardy MA, Hochman BR, editors. *Global Surgery: How to Work and Teach in Low- and Middle-Income Countries* [Internet]. Cham: Springer International Publishing; 2023 [cited 2023 Sep 6]. p. 109–22.

[Critical Care Units in Malawi: A Cross-Sectional Study](#) Sonenthal PD, Kasomekera N, Connolly E, Wroe EB, Katete M, Minyaliwa T, *et al.* *Annals of Global Health*. 2023 Aug 3;89(1):51.

[Policies and resources for strengthening of emergency and critical care services in the context of the global COVID-19 pandemic in Kenya](#). Oliwa JN, Mazhar RJ, Serem G, Khalid K, Amoth P, *et al.* *PLOS Global Public Health* 3(7) (2023)

Resuscitation team training in Rwanda: A mixed method study exploring the combination of the VAST course with Advanced Cardiac Life Support training.

Tuyishime E, Mossenson A, Livingston P, Irakoze A, Seneza C, Ndekezi JK, et al. *Resusc Plus*. 2023 Sep 1;15:100415.

Doctors' experiences of referring and admitting patients to the intensive care unit: a qualitative study of doctors' practices at two tertiary hospitals in Malawi

Gundo R, Kayambankadzanja, RK, Chipeta D, et al *BMJ Open* 2023; **13**:e066620.

Technical innovation in critical care in a world of constraints: lessons from the pandemic. Mekontso Dessap A, Baker T, Godard A et al. *Accepted in American Journal of Respiratory And Critical Care Medicine* 4th January 2023

Resource availability, utilisation and cost in the provision of critical care in Tanzania: a protocol for a systematic review. Kazibwe J, Shah HA, Kuwawenaruwa A, Schell CO, Khalid K, Tran PB, et al. *BMJ open*. 2021;11(8):e050881.

Stark choices: exploring health sector costs of policy responses to COVID-19 in low-income and middle-income countries. Torres-Rueda S, Sweeney S, Bozzani F, Naylor NR, Baker T, Pearson C, et al. *BMJ Glob Health*. 2021;6(12).

Establishment of a high dependency unit in Malawi. Morton B, N Banda, E Nsomba, C Ngoliwa, S Antoine, J Gondwe, F Limbani, MYR Henrion, J Chirombo, Baker T, P Kamalo, C Phiri, L Masamba, T Phiri, KS Mndolo, SB Gordon, J Rylance. *BMJ Global Health* 2020; 5(11): e004041.

The use of antibiotics in the intensive care unit of a tertiary hospital in Malawi. Kayambankadzanja RK, Lihaka M, Barratt-Due A, Kachingwe M, Kumwenda W, Lester R, Bilima S, Eriksen J, Baker T. *BMC Infectious Diseases*. 2020.20(1):776

The prevalence and outcomes of sepsis in adult patients in two hospitals in Malawi. Kayambankadzanja RK, Schell CO, Namboya F, Phiri T, Banda-Katha G, Mndolo SK, Bauleni A, Castegren M, Baker T. *American Journal of Tropical Medicine and Hygiene*. 2019.

Inability to walk predicts death among adult patients in hospitals in Malawi. Kayambankadzanja,RK, Schell CO, Nsanjama G, Mbingwani I, Mndolo SK, Rylance J, Baker T. *Emergency Medicine International*. 2019; 5.

Referral and admission to intensive care: a qualitative study of doctors' practices in a Tanzanian university hospital. Engdahl Mtango S, Lugazia E, Baker U, Johansson Y, Baker T. *PLoS One*. 2019; 14(10): e0224355.

Critical care of tropical disease in low income countries: Report from the Task Force on Tropical Diseases by the World Federation of Societies of Intensive and Critical Care Medicine. Baker T, Khalid K, Acicbe O, McGloughlin S, Amin P; *J Crit Care*. 2017 Dec;42:351-354.

Critical care in Malawi: The ethics of beneficence and justice. Manda-Taylor L, Mndolo S, Baker T. *Malawi medical journal : the journal of Medical Association of Malawi*. 2017;29(3):268-71.

[Derivation and validation of a universal vital assessment \(UVA\) score: a tool for predicting mortality in adult hospitalised patients in sub-Saharan Africa](#) Moore CC, Hazard R, Baker T, et al. *BMJ Global Health*. 2017; 2: e000344

Global Intensive Care Working Group of the European Society of Intensive Care Medicine. [Current challenges in the management of sepsis in ICUs in resource-poor settings and suggestions for the future](#). Schultz MJ, Dunser MW, Dondorp AM, Adhikari NK, Baker T, et al; *Intensive Care Med*. 2017;43(5):612-624.

[Establishing an Anaesthesia and Intensive Care partnership and aiming for national impact in Tanzania](#). Ulisubisya M, Jornvall H, Irestedt L, Baker T.

Critical Care in Low-income Countries.

Baker T. *World Anaesthesia News* 2014;July:8-11

[Emergency and critical care services in Tanzania: a survey of ten hospitals](#).

Baker T, Lugazia E, Eriksen J, Mwafongo V, Irestedt L, Konrad D. *BMC Health Services Research* 2013;13:140

[Identifying resource needs for sepsis care and guideline implementation in the Democratic Republic of the Congo: a cluster survey of 66 hospitals in four eastern provinces](#). Baelani I, Jochberger S, Laimer T, Rex C, Baker T, Wilson IH, et al. *Middle East journal of anaesthesiology*. 2012;21(4):559-75

[Recommendations for sepsis management in resource-limited settings](#).

Dünser MW, Baker T et al. *Intensive Care Med*. 2012 Apr;38(4):557-74.

[Availability of critical care resources to treat patients with severe sepsis or septic shock in Africa: a self-reported, continent-wide survey of anaesthesia providers](#)

Baelani I, Baker T et al. *Crit Care* 2011;15(1):R10

[Nationwide survey on resource availability for implementing current sepsis guidelines in Mongolia](#).

Bataar O, Lundeg G, Tsenddorj, G, Jochberger S, Grandner W, Baelani I, Wilson I, Baker T, Dünser M. *Bull World Health Organ* 2010; 88:839–846

[Use of an early warning score and ability to walk predicts mortality in medical patients admitted to hospitals in Tanzania](#). Rylance J, Baker T et al. *Trans R Soc Trop Med Hyg* 2009; 103: 790-794

[Pediatric emergency & critical care in low-income countries](#). Baker T. *Pediatric Anesthesia* 2009;19:23–27

[Critical care in low-income countries](#). Baker T. *Trop Med Int Health* 2009;14(2):143-8.

