The United Republic of Tanzania
Ministry of Health

MALARIA BURDEN REDUCTION INITIATIVES

INTEGRATED COMMUNITY MALARIA CASE MANAGEMENT REFERENCE MANUAL

NATIONAL MALARIA CONTROL PROGRAM 2023.

Foreword

It is with great pleasure that we introduce this reference manual, which serves as an invaluable guide to the implementation of the “test, treat, and track” initiative (3Ts) advocated by the World Health Organization (WHO) in the context of malaria control. Malaria remains a significant public health challenge in many parts of the world, and the 3Ts strategy represents a vital approach to combat this deadly disease effectively.

The WHO’s 3Ts initiative emphasizes three fundamental components: testing suspected malaria cases, treating confirmed cases with appropriate antimalarial medications, and meticulously tracking the disease’s progression through robust surveillance systems. These components are essential pillars in the battle against malaria, ensuring that individuals receive prompt and accurate diagnosis, followed by appropriate treatment and comprehensive disease monitoring.

In line with international guidelines, this manual underscore the importance of confirmatory testing for every suspected malaria case, using either microscopy or malaria rapid diagnostic tests (mRDTs). Moreover, it outlines the recommended antimalarial treatments, such as Artemether Lumefantrine for uncomplicated cases and parenteral Artesunate for severe cases, aligning with the treatment guidelines established by the Ministry of Health. These guidelines are critical to ensuring that patients receive the most effective and appropriate care based on their malaria diagnosis.

The manual also highlights the significance of tailoring interventions to the specific malaria risk stratification in a given stratum. This approach acknowledges the diversity of malaria transmission patterns, focusing on reducing disease burdens in high transmission areas while intensifying efforts for disease elimination in low transmission areas. The National Malaria Strategic Plan (NMSP) for 2021-2025 is a testament to this strategic approach, emphasizing the need to provide integrated Community Case Management (iCCM) services.

Importantly, the manual explores into the technical guidelines for implementing iCCM, with a primary objective of increasing access to early malaria diagnosis and treatment, particularly in high malaria transmission areas and hard-to-reach regions. Recognizing that approximately 10% of the Tanzanian population faces limited access to health facilities due to geographical constraints, iCCM services become a lifeline for those in need of prompt medical attention for malaria, pneumonia, and diarrhea. While this manual offers valuable technical insights into the iCCM approach, it emphasizes that community engagement is paramount for its successful execution. In addition, the manual highlights the vital role of nearby accountable health facilities within the public health delivery mechanism, further enhancing the effectiveness of iCCM implementation.

In conclusion, this reference manual is a comprehensive resource that brings together the principles and guidelines of the WHO’s 3Ts initiative, the national malaria treatment guidelines, and the NMSP for 2021-2025. It serves as a valuable tool for healthcare practitioners, policymakers, and stakeholders committed to the fight against malaria. By adhering to the principles outlined in this manual, we can collectively work towards reducing the global malaria burden and, ultimately, achieving a malaria-free world. We extend our gratitude to all those who contributed

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Dr. Catherine Joakim
HEAD OF PROGRAMS

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LIST OF ABBREVIATIONS	
ACT	Artemisinin Combination Therapy
AL	Artemether Lumefantrine
ASAQ	Artesunate Amodiaquine
CBHS	Community Based Health Services
CHMT	Council health Management Team
CHW	Community Health Worker
CmCM	Community Malaria Case Management
CORP	Community Owned Resourceful Person
DCBHSco	District Community Based Health Services Coordinator
DHIS2	District health Information Software 2
DHMISFP	District Health Management Information System Focal Person
DLT	District Laboratory Technologist
DMIFP	District Malaria and IMCI Focal Person
DOT	Direct Observed Treatment
DP	Dihydroartemisinin Piperaquine
DQA	Data Quality Assessment
DPharm	District Pharmacist
DRCHco	District Reproductive and Child Health Coordinator
DT	Dispersible Tablets
GIS	Geographical Information System
HCW	Health Care Workers
HIV	Human Immunodeficiency Virus
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HLPC	Health Laboratories Practitioners' Council
HMIS	Health Management Information System
HPU	Health Promotion Unit
iCCM	integrated Community Case Management
IMCI	Integrated Management of Childhood Illnesses
IPC	Infection Prevention and Control
IRS	Indoor Residual Spray
LCD	Liquid Crystal Display
LSM	Larval Source Management
M & E	Monitoring & Evaluation
MCM	Malaria Case Management
MIS	Malaria Indicators Survey
MoH	Ministry of Health
MRC	Mass Replacement Campaign
mRDT	Malaria Rapid Diagnostic Test
MSD	Medical Stores Department
MVS	Malaria Vector Surveillance

NGMDT & PT	National Guidelines for Malaria Diagnosis, Treatment & Preventive Therapies
NMCP	National Malaria Control Program
NMSP	National Malaria Strategic Plan
OPD	Outpatient Department
ORS	Oral Rehydration Solution
PMTCT	Prevention of Mother to Child Transmission
PO-RALG	President's Office Regional Administration and Local Government
PPE	Personal Protective Equipment
R/CHMT	Regional/Council Management Team
RCBHSCo	Regional Community Based Health Services Coordinator
RCH	Reproductive and Child Health
RDT	Rapid Diagnostic Test
RHMISFP	Regional Health Management Information System Focal Person
RLT	Regional Laboratory Technologist
RMIFP	Regional Malaria and IMCI Focal Person
RMNCAH	Reproductive, Maternal, Neonatal, Child and Adolescent Health
Rpharm	Regional Pharmacist
RRCHCo	Regional Reproductive and Child Health Coordinator
SBC	Social Behavioral Change
SME	Surveillance Monitoring and Evaluation
SMPS	School Malaria Parasitological Survey
SNP	School Net Program
SRP	Smart Register Platform
SWOT	Strengths, Weaknesses, opportunities and Threats
TDHS	Tanzania Demographic Health Survey
TDS	Three times a day
TES	Therapeutic Efficacy Survey
TMDA	Tanzania Medicine & Medical Devices Authority
TOT	Training of Trainers
TWG	Technical Working Group
UCS	Unified Community System
VEO	Village Executive Officer

Introduction | 01

BACKGROUND

The 2020 – 2025 National Malaria Strategic Plan requires that 85% of patients receive appropriate testing and treatment of malaria within 24 hours of onset of illness. The current situation shows that only 48% receive testing services and 78% among them receive antimalarial medications within 24 hours of onset of illness (MIS 2022).

Furthermore; about 10% of Tanzanian population has low access to health facilities in term of more than one-hour walking distance. Overstretched health care services and hard to reach areas are likewise the major obstacle to promote universal health access to all Tanzanians. In 2022, 10 councils in 5 regions were targeted for inception of piloting CmCM aiming at learning the implementation of community testing and treatment of uncomplicated malaria and its overall impact in the community in subject. Malaria community case management (CmCM) promotes early recognition, prompt testing and appropriate treatment of malaria among all age groups in areas with limited access to facility-based health care providers. CmCM provides an equitable and efficient system for delivery of community malaria case management services as an extended arm of the public health service. The services were rendered within the routine delivery system by using current logistic and M&E frameworks. Priority areas for the introduction and establishment of CmCM services were a) High malaria risk; b) Hard to reach. In 2022, malaria caused illness to 3.5 million people and 1.5 million deaths. Apart from malaria, pneumonia and diarrhea have caused illness to 2.5 million and 1.1 million children respectively.

Among reasons contributing to deaths is inability of community members to access health services due to long distance between communities and Operational health facilities.

Treatment Gap

Malaria diagnostics services are offered by nearly all public and private functional health facilities at all levels of health care delivery. Also, national representative surveys (TDHS and HMIS) indicate that access and utilization of treatment services with the recommended anti-malarial within 24 hours of the onset of fever by children less than 5 years, has not improved for the last 10 years and is currently around 34.5% (2017, MIS). Countrywide, ACTs have been used by 89% of patients treated with anti-malarial (MIS 2017). In the last 5 years 70.9 million ACT (AL) and 107.2 million mRDTs were procured for the public sector (NMSP 2021-25).

Situations: According to the National Malaria Strategic Plan 2021 – 2025 about 10% of Tanzanian population has low access to health facilities in term of more than one-hour walking distance. Overstretched health care services and hard to reach areas are the major obstacle to promote universal access to all Tanzanians. In 2020, 28 councils in 5 regions were targeted for inception of CmCM. Malaria community case management (CmCM) promotes the early recognition, prompt testing and appropriate treatment of malaria among all age groups in areas with limited access to facility-based health care providers. The National Guidelines for Malaria Diagnosis, Treatment and Preventive Therapies (NGMDT&PT) 2020 stipulates the requirements for management of malaria at household and community level. Inception of iCCM in Tanzania aims at establishing an equitable and efficient system for delivery of community malaria case management services as an extended arm of the public health service. The service will be facilitated within the routine delivery system by using current logistic and M&E frameworks.

Priority areas for the introduction and establishment of CmCM services are a) High malaria risk; b) Hard to reach. With a country wide implementation of iCCM malaria patients are expected to be from either community of health facility-based and therefore; iCCM progress shall be measured assessed by shall proportion of patients treated within the community by iCCM framework.
Lessons from malaria community case management Pilot 2022.

Policy, integration, leadership, and coordination

Piloting of CmCM has raised a need of scaling up the intervention to other high burdenstrata as well as to expand the scope of service from malaria stand alone to the integrated community case management which also include; Pneumonia and Diarrhea.

Community leadership should be on the fore front position during the implementation of the iCCM and therefore it is important that the community leaders to be involved right from the early stages of the inception of intervention to create awareness and hence the ownership of this strategy.
During implementation of iCCM, a council ie. CHMTs should play a central role in coordination of the intervention. The council should relay information from the national level to the lower level but also through the same channel information should be filtered and sent to the upper level.

Human resources: training, incentives and retention.

CmCM pilot was conducted by using licensed medical practitioners such as enrolled nurses, registered nurses, clinical officers, clinical assistants, laboratory technicians, pharmaceutical technicians and assistant medical officers who all were either retired or unemployed who were arbitrary called CORPs (Community Owned Resource Persons).

Implementation of iCCM shall continue to use the same human resource however, other provider such as Community Health Workers CHW can also be used in a future to meet the demand for the needed resources.

Despite working on a voluntary basis, ICCM providers are entitled to the regular monetary incentivization which shall be determined by community-based health services policy, nature of the cadres used to offer services and availability of fund.

Supply chain management

As iCCM is an extended arm of the health facility, all commodities shall be collected from the health facility and iCCM providers together with the health facility in charge of the facility in subject shall be accountable for all commodities used in the implementation of the strategy.
Service delivery and referral.

To successfully reduce the mortality caused by malaria during implementation of iCCM, a well-established point of service must be in place as well as provider should be able to move from one point to another to reach for the small communities away from the point of services.

Monitoring and evaluation

Data management for monitoring and evaluation of iCCM should be digitalized to ensure timely acquisition of data but also a timely decision-making process. Universal Community UCS should be used to collect and display iCCM data and therefore each iCCM provider should be enabled with an electronic device and how to use them.

CHAPTER 2 | GOAL OF iCCM

The goal of iCCM is to reduce mortality and morbidity due to malaria by providing universal access to appropriate, quality and timely testing and treatment.

- **Objectives**

Main objective.
By the end of 2025 at least 85% of patients will receive appropriate testing and treatment for malaria.

Target Group
Malaria services under iCCM will be provided to persons of all age groups while pneumonia and diarrhea services will be provided to children aged under five years. This is because, in Tanzania malaria testing and treatment services are provided at zero cost to clients to all age groups while health services are provided for free to children under five years for all disease conditions.

Eligibility of iCCM introduction
The structural unit of implementation of iCCM shall be council while the operational unit shall be the village or hamlet. This means a council shall be counted as a council of implementation of iCCM even when only one village is implementing iCCM.

CRITERIA
Any village or hamlet from the council with high malaria risk of transmission that met one or more of the following criteria.

1. A hard-to-reach village or hamlet expressed in walking distance of five (5) or more kilometers to the operational health facility.
2. A hard-to-reach village or hamlet expressed in time of 1 or more hours to the operational health facility.
3. A hard-to-reach village or hamlet with a geographical barrier such as rivers, water bodies, islands, hills and mountains and poor road infrastructure that limit the access to the operational health facility.
4. A village or hamlet with inadequate health care access is determined by a health facility serving more than 10,000 people.

Services under iCCM
Services to be provided under iCCM are stipulated per diseases included in the intervention. These are:

For malaria
- History taking and physical examination
- Malaria testing using mRDT
- Malaria treatment of uncomplicated malaria using recommended ACT
- Referral when needed

Pneumonia and Diarrhea
- History taking and physical examination
- Treatment using Amoxicillin DT and ORS/Zinc for Pneumonia and Diarrhea respectively
  Referral when needed.

CHAPTER 3 | IMPLEMENTATION OF iCCM

SWOT ANALYSIS

	STRENGHT	WEAKNESS
1.	Availability of the established target for implementation of iCCM.	Cumbersome existing HMIS tools for data collection during service provision.
2.	Established an evidenced based modality for implementation of the intervention.	Limited information on the implementation of iCCM in Tanzania.
3.	A pre-existing hierarchy of health system that provide a framework for smooth implementation.	Unclear means of transporting medical wastes and other commodities to and from the nearby health facility that supports areas implementing iCCM.
4.	Availability of iCCM module within the Universal Community System UCS.	
5.	Availability of adequate number of community health workers (CHW) who can also be used in the implementation of iCCM.	
6.	A reliable supply of commodities at health facilities that can be used in iCCM services i.e., MRDT, ACTs, consumables, etc.	
	OPPORTUNITIES	**THREATS**
1.	A commitment from development and implementing partners on funding the intervention.	Under budgeting of other disease co-managed with malaria in iCCM (i.e., Pneumonia and Diarrhea.
2.	The National operational guideline for community-based healthcare service has stipulated the how iCCM implementation should take place.	A limited availability of the licensed medical practitioners on the areas where iCCM is to be implemented.
3.	Minimized running cost due to the integration policy within the ministry of health.	There some areas that requires iCCM services however, there is no facility (eg: government's office) for service provision.
		Different policy views of the pharmacy council and health laboratory practitioner's council (HLPC) on dispensing and testing roles to uncertified CHWs.

Human Resource for iCCM

An iCCM services shall be provided by any individual who had been accepted by the community in subject but also this provider should also meet the criteria that has been mentioned below;

1. Licensed health care professionals residing in the village and who are willing to provide iCCM services. They will be identified by the village health committee and will be required to attend the iCCM training.
2. A resident of the village with a minimum of ordinary level secondary education, trained on community-based healthcare services module one (basics of health promotion for community health worker) and attends iCCM training, familiar with cultural norms, morally and culturally well accepted by the community and willing to work voluntarily. The iCCM provider will be selected by the village leadership through the village health committee with an assistance from council health management team (CHMT).

Either a provider is a licensed medical practitioner previously called CORP (Community Owned Resource Person) or a CHW they shall both be called an iCCM provider.

INSTITUTIONAL COORDINATION OF ICCM: RESPONSIBLE NATIONAL UNIT, TECHNICAL WORKING GROUP (TWG) AND TASK FORCE.

National level

- NMCP in close collaboration with RMNCAH Directorate and Health Promotion Unit (HPU) will coordinate the technical implementation of iCCM services. NMCP will take the overall lead.
- PO-RALG will oversee and make sure that iCCM services are implemented at council and village levels.
- iCCM task force that is comprised of NMCP, HMIS representation, PO-RALG, MSD, HPU, child health unit of the RMNCAH directorate, Directorate of Nursing and Midwife malaria implementing partners, national health laboratory council, national pharmacy council, etc. Will be responsible for review and establishment of evidence for improvement of iCCM services.
- The iCCM task force will inform the MCM TWG
- ICCM task force meetings should be convened on Quarterly basis.

LEVELS, ROLES AND RESPONSIBILITIES: NATIONAL, REGIONAL, COUNCIL, COMMUNITY, HEALTH FACILITY, OTHER STAKEHOLDERS AND ICCM SERVICE PROVIDERS

National level

Ministry of Health and PO-RALG

- NMCP, RMNCAH directorate and HPU will collaboratively lead the development/review and dis semination of iCCM guidelines.
- PO-RALG, NMCP, RMNCAH directorate and HPU will provide national level supportive supervi sion for iCCM.
- PO-RALG, NMCP, RMNCAH directorate and HPU will establish pool of national iCCM trainers.
- Coordinate and advocate for ICCM services to regional secretariat.
- Mobilize and harmonize distribution of resources for iCCM implementation.

Regional level (RHMT)

- RHMT will conduct supportive supervision on iCCM services at regional level.
- Provide regional iCCM trainers i.e., RMIFP, RLT, RHMISFP, RPharm, RRCHCo and RCBHSCo.
- Provide support for availability of iCCM commodities and supplies.
- Provide support on iCCM data management in the region.
- Coordinate and advocate for ICCM services to village leaderships and health facilities in-charges.

Council level (CHMT)

- CHMT will conduct supportive supervision on iCCM services at council level.
- Provide district iCCM trainers i.e., DMIFP, DLT, DHMISFP, DPharm, DRCHCo and DCBHSCo
- Provide skill assessment to iCCM service providers after their clinical attachment before they commence providing services at villages or hamlets
- Provide support for availability of iCCM commodities and supplies
- Provide support on iCCM data management tools at villages and health facilities.
- Provide on recruitment of iCCM service providers.
- Provide support of working tools for iCCM e.g., Transport means, backpacks, toolboxes
- Oversee set up of working environment for iCCM service providers.
- Coordinate and advocate for iCCM services to village leaderships and health facilities in-charges.

Health facility level

- Provide (period in 4 - 6 weeks) clinical attachment of trained iCCM service provider.
- Provide iCCM commodities and supplies to iCCM service providers.
- Provide monthly iCCM supportive supervision through outreach services.
- Document and record commodities transactions and consumptions data.
- Provide support on iCCM data quality assessment and reporting.
- Receive, manage and provide feedback on iCCM referrals.

Village level
- Take lead in the recruitment of iCCM service providers.
- Introduce iCCM service provider to the village community.
- Mobilize village community to utilize iCCM services.
- Provide working place for iCCM services provider; VEO office being an ideal but if this office is not supportive, a different acceptable place within the village can be identified to serve purpose.

iCCM provider
- Conduct case screening, malaria testing and treatment of uncomplicated malaria, non-severe pneumonia and watery diarrhea with no dehydration.
- Proper handling of waste as per indication in the IPC section of this guideline.
- Document and record commodities transactions and consumptions data.
- Provide referral of all severe illnesses and when there are no commodities.
- Receive and work on referral feedback from health facility.
- Collaborate with CHWs working on demand creation activities.

Development and Implementing partners
- Provide both financial and technical support to the development and review of iCCM guidelines.
- Facilitate the implementation of iCCM at field level through capacity building of iCCM service providers and regional-based trainers.
- Facilitate implementation of iCCM at field level through provision of commodities, innovations in data management and working tools.

ADVOCACY, SENSITIZATION AND MOBILIZATION
iCCM is a new intervention in Tanzania. Therefore, advocacy, sensitization and mobilization are the core activities at all levels. It is aimed at continuously influencing decision makers to create an enabling environment including policies and resources that would facilitate the effective implementation of iCCM.

iCCM advocacy, sensitization and mobilization primary target audiences are decision makers at Ministry of Health, PO-RALG, regional and district administrative, regional and district health management teams, health facilities and community leaders who play an important role in planning, implementation and monitoring of iCCM activities. Advocacy, sensitization and mobilization strategies will be determined by the target audience and desired results at every level.

National level
National level advocacy activities will focus on alignment of national policies, integration of iCCM interventions, buy in for iCCM and resources. The national level will therefore spearhead development of iCCM advocacy, sensitization and mobilization plan, coordinate and harmonize iCCM advocacy activities including disseminating the policy briefs and guidelines among key decision makers at the Ministry of Health, PO-RALG and regional level.

Regional level
Advocacy activities will be organized at regional level to engage regional and district secretariat and regional health management team to secure their buy in, ensure dissemination of iCCM guidelines to CHMTs, oversee of iCCM activities and quality control of iCCM services at council level.

Council level
Sensitization and mobilization activities will be organized at council level to engage council secretariat and council health management team (CHMT) on their role to support iCCM services, ensure they coordinate and control quality of iCCM services at council level and disseminate iCCM information at facility and community level.

Community
Sensitization and mobilization at community level will focus on encouraging ownership and support to iCCM services among community leaders, influential people, religious leaders and community health committees in communities which meet criteria for implementation of iCCM. This will enhance adequate implementation, sustainability and promotion of iCCM services at community level.

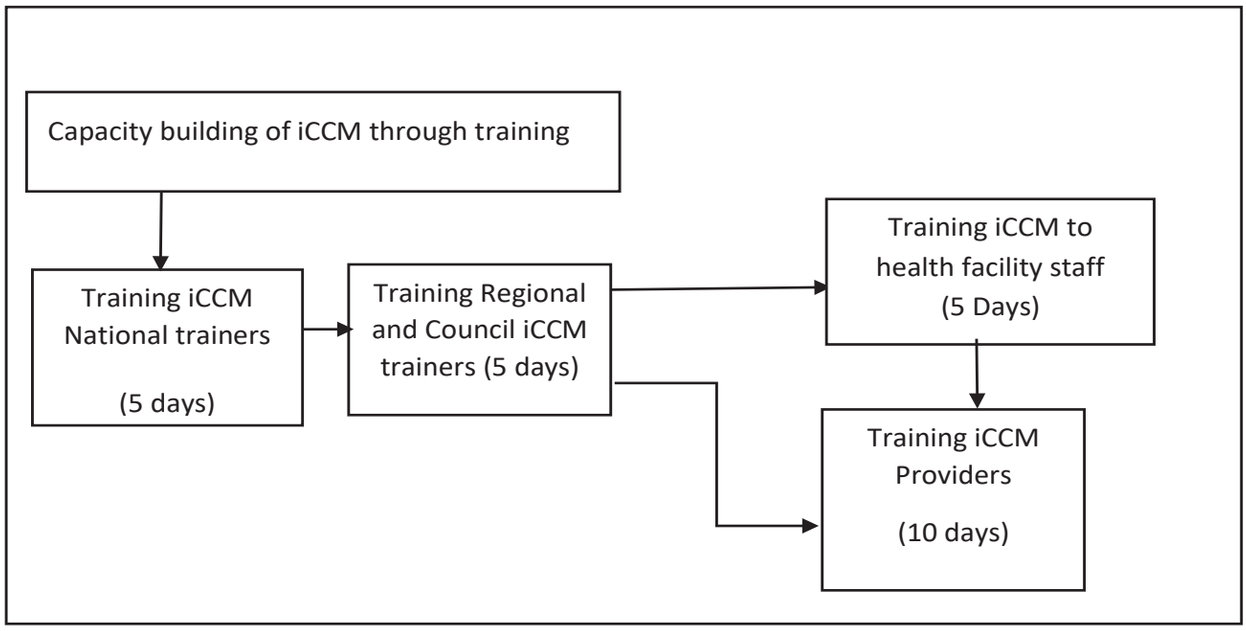
Community members will be reached through social behavior change (SBC) activities to continuously create awareness about availability of iCCM services, encourage early iCCM service seeking behavior and address possible myth and mis conceptions that may arise as iCCM services are introduced.

CAPACITY BUILDING FOR ICCM IMPLEMENTATION.

Capacity building will involve building technical and managerial competences at all levels. The main aim is to effectively impart knowledge and skills for treating malaria, diarrhea and pneumonia including patient referral, records and drug supply management. The focus will be on competence building and adult-learning methods will be used. There will be four training packages including: National trainers, supervisors, health facility workers and iCCM provider training.

The capacity building will be done through a cascade process as shown in Figure 1 below. Details of the specific activities at national, district, health facility and community are described below.

Schematical presentation of Training Cascade for iCCM



Training content

1. National TOTs: A team of national trainers will comprise of a mix of
   - Malaria concept
   - Management of malaria (clinical presentation both uncomplicated and severe malaria, malaria testing-MRDT, treatment using ACT/AL, pre-referral management of malaria, and referral) and malaria prevention.
   - IMCI concept
   - Assessment of cough and diarrhea clinical presentation and the management of non-severe pneumonia and westerly diarrhea with no signs of dehydration.
   - IPC concept
   - Patient handling, waste segregation and waste disposal
   - Commodity/supplies management and reporting (commodity needs, re-ordering, storage, record keeping and tools for use, use at the various levels of the ICCM supply chain, adverse drug reaction monitoring and individual responsibilities).
   - Community health education (Information, education and communication)
   - Facilitation and supervision skills
   - Pre and post tests

2. Regional and Council based TOTs
   - Malaria concept
   - Management of malaria (clinical presentation both uncomplicated and severe malaria, malaria testing-MRDT, treatment using ACT/AL, pre-referral management of malaria, and referral) and malaria prevention.
   - IMCI concept

- Assessment of cough and diarrhea clinical presentation and the management of non-severe pneumonia and westerly diarrhea with no signs of dehydration.
- IPC concept
- Patient handling, waste segregation and waste disposal
- Commodity/supplies management and reporting (commodity needs, re-ordering, storage, record keeping and tools for use, use at the various levels of the ICCM supply chain, adverse drug reaction monitoring and individual responsibilities).
- Community health education (Information, education and communication)
- Facilitation and supervision skills
- Pre and post tests

3. Health Facility incharge and ICCM service providers
   - Malaria concept
   - Management of malaria (clinical presentation both uncomplicated and severe malaria, malaria testing-MRDT, treatment using ACT/AL, pre-referral management of malaria, and referral) and malaria prevention.
   - IMCI concept
   - Assessment of cough and diarrhea clinical presentation and the management of non-severe pneumonia and westerly diarrhea with no signs of dehydration.
   - IPC concept
   - Patient handling, waste segregation and waste disposal
   - Commodity/supplies management and reporting (commodity needs, re-ordering, storage, record keeping and tools for use, use at the various levels of the ICCM supply chain, adverse drug reaction monitoring and individual responsibilities).
   - Community health education (Information, education and communication)
   - Pre and post tests

NOTE: If the iCCM service provider drops, the village in collaboration with CHMT will recruit a new provider who will undergo health facility attachment for (4 - 6) weeks, get assessed for knowledge and skills before commencing provision of services.

SUPPORTIVE SUPERVISION

To ascertain provision of safe and quality services by iCCM provider, regular supportive supervision should be conducted to mentor the provider on improving the standard of services. This shall be achieved by having a supervisor from various levels of administration ie: National, Regional, Councils and Villages.

Standard checklists may be used to assess the quality of care, supplies, data collection and reporting systematically. Financing and infrastructure, especially transport, for iCCM provider are vital for motivating them, improving service delivery, and identifying barriers to access.

ICCM supportive supervision checklist shall be established within MSDQI package to harmonize iCCM supervision with other malaria supervisions. Incorporation of iCCM supervision checklist in MSDQI package allows supervisors and CHWs to plan visits, especially for iCCM supervision who work in remote areas, and to monitor performance and obtain accurate, timely information about cases and necessary supplies.

The following details shall be assessed during iCCM supportive supervision;
- provision of the programme package by individual iCCM provider;
- availability of supplies and logistics for supply and resupply;
- data-tracking, patient register, timeliness, and accuracy of reports;
- provision of high-quality iCCM and clinical skills; and
- accountability and recommendations for corrective actions.

Supervision will be an integral component of ongoing district supervision activities and it should be competence based, taking place at least once every quarter. Details of the specific activities at national, regional, district, health facility and village are described below.

National level

- Update the national supervision guidelines and plans to include iCCM.
- Conduct technical and administrative supportive supervision bi-annually in regions implementing
i CCM. Supervision site sampling should involve both village and affiliated facility.
- The team of supervisors will comprise of NMCP staff, PO-RALG, Pharmacy council representative and HLPC staff.

Region level

- Conduct technical and administrative supportive supervision quarterly in councils implementing iCCM. Sampling of supervision site should involve both village and affiliated facility.
- Supportive supervision feedback will follow the existing standard as per the latest national sup portive supervision guideline.
- The team of supervisors will comprise of RMIFP, regional pharmacist, regional laboratory coordinator and Regional Health Promotion Coordinator

District level

- Conduct technical supportive supervision quarterly in affiliated-facilities and villages implement ing iCCM.
- CHMT should integrate redistribution of commodities and supplies.
- Supportive supervision feedback will follow the existing standard as per the latest national sup portive supervision guideline.
- The team of supervisors will comprise of DMIFP, district pharmacist, district laboratory coordinator and District Health Promotion coordinator

Health Facility Level

- Integrate supportive supervision to iCCM service providers with outreaches at least once a month using the village level supportive supervision checklist.
- Team of supervisors will comprise of health facility in-charge, RCH in-charge, dispensing nurse and laboratory in-charge.

PACKAGE OF ICCM SERVICE PROVIDERS:

To be able to execute their roles, iCCM provider will be provided with a package containing the following items.

- Means of transport
- Commodity and supplies storage tool e.g., Toolbox
- Rain boot and coat
- Patient weighing scale
- Clinical thermometer
- Backpack
- Identity card
- Smartphones
- Portable solar chargers for android phones
- Reflectors
- Other items needed in a given area

CHAPTER 4: SERVICE DELIVERY

iCCM services will be provided by a trained iCCM provider. The services will be provided at a village office, or any other area allocated by the community which qualifies for attending patients, conducting malaria tests, and providing treatment to diseases targeted in iCCM. Since the iCCM services will be known to the local community, the community members will know where and when the services are provided, and they will go to seek for services as they could have done if the services were offered at a health facility.

Services offered to clients

Screening for danger signs and/or severe illness

The iCCM provider will screen the clients attending the services for danger signs. Clients having danger signs or identified to have signs/symptoms of severe illness will be referred to a health facility immediately after pre-referral management.

Danger signs

Under five	Above five
• Can't drink or breast feeding	• Extreme weakness and prostration
• Vomiting everything	• Vomiting everything
• Convulsion or history of convulsion in this illness	• Coma
• Lethargic or unconscious.	• Behavioral change

After screening for danger signs and the client observed to be free from any danger signs then the iCCM care provider will ask the patient or caregiver for major symptoms and signs of ill ness including Diarrhea, fever and cough, if the answer will be yes for any one of the above mentioned symptoms then iCCM will prepare the patient for testing/assessment according to the illness responded. Management of malaria.

ICCM provider will provide testing and treatment to the community based on identified symptoms for malaria.

1. **Malaria screening.**

   Screening for Malaria shall be done by mRDT at the community level to any client presented with the symptoms or signs of fever

   Interpretation of mRDT

   It is used to test antigen found in malaria parasites and has three test lines

   – Control line
   – Pf –line
   – Pan –line

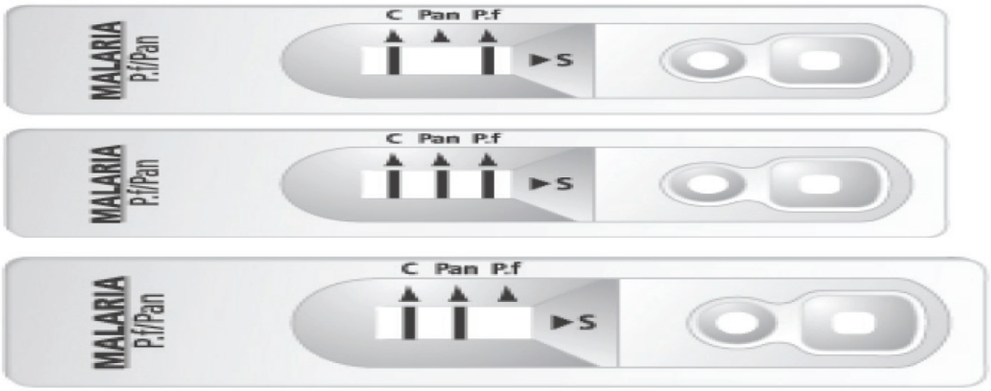
   mRDT Negative:

   There is a line at C area but no line at Pf and no line at Pan area

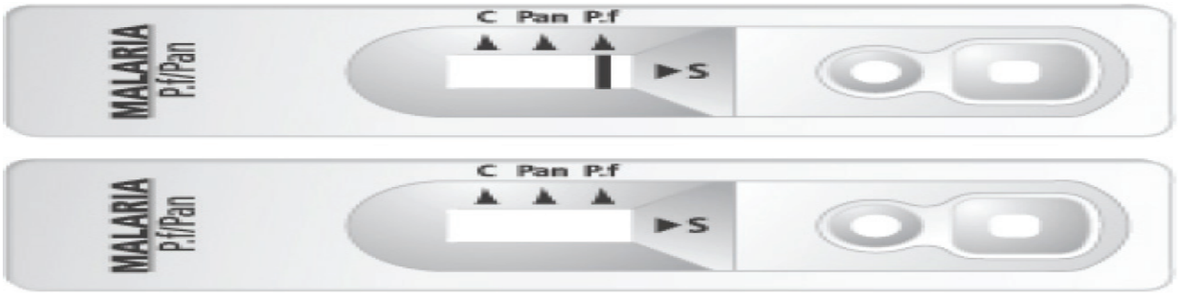
mRDT Positive:

There is a line:

– At C and P.f area
– At C, P.f and Pan area
– At C and Pan area



mRDT Invalid:

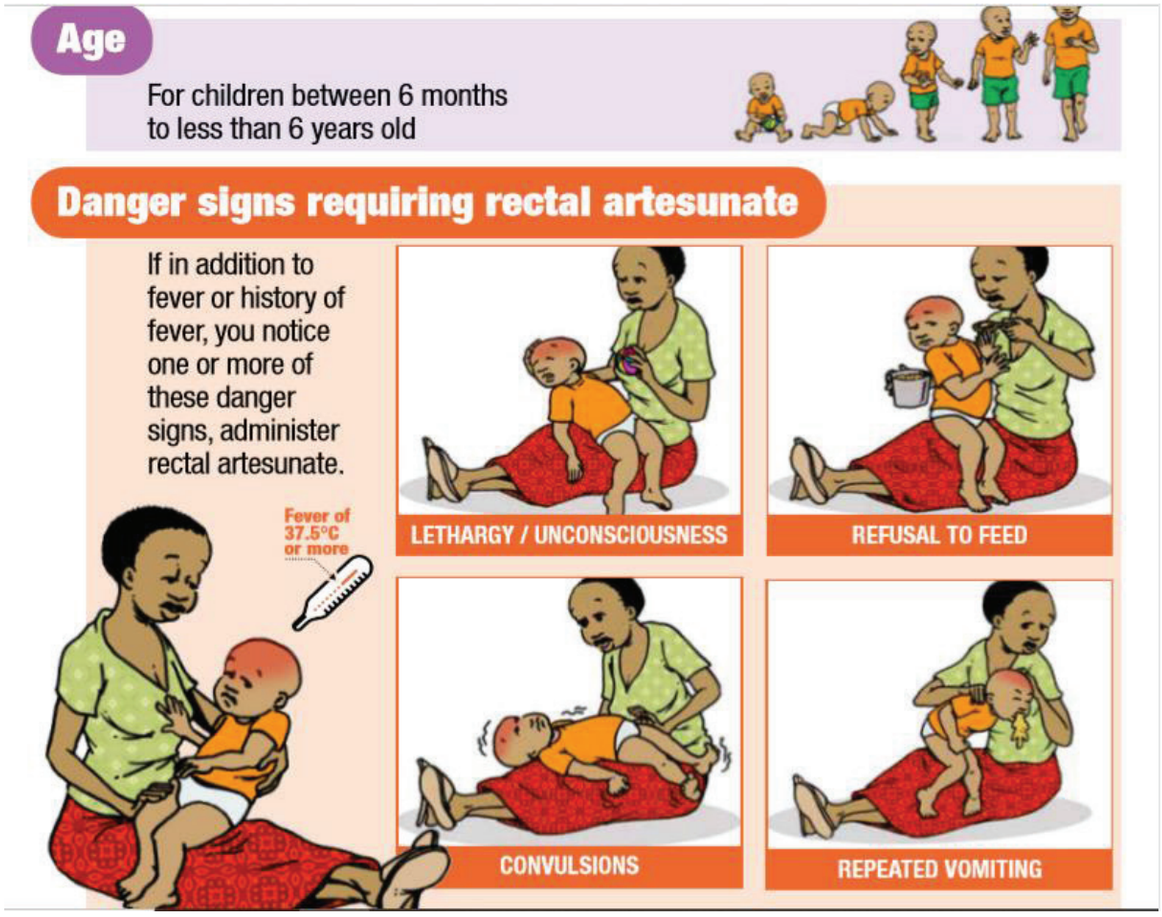


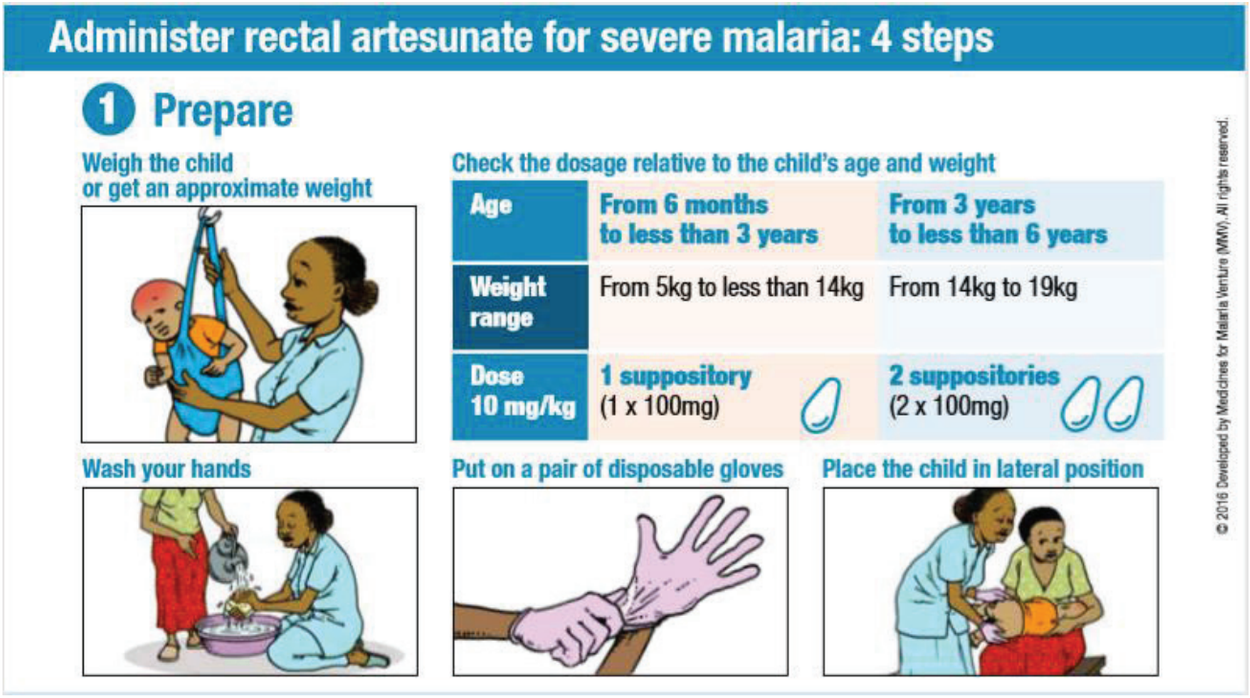
There is no line at C area.

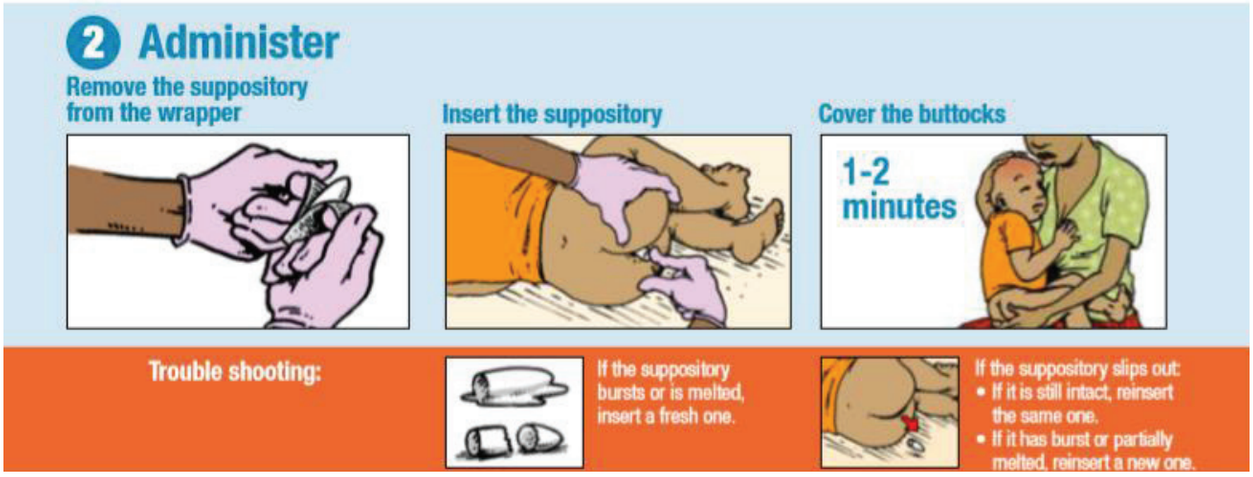
2. Treatment of Malaria.

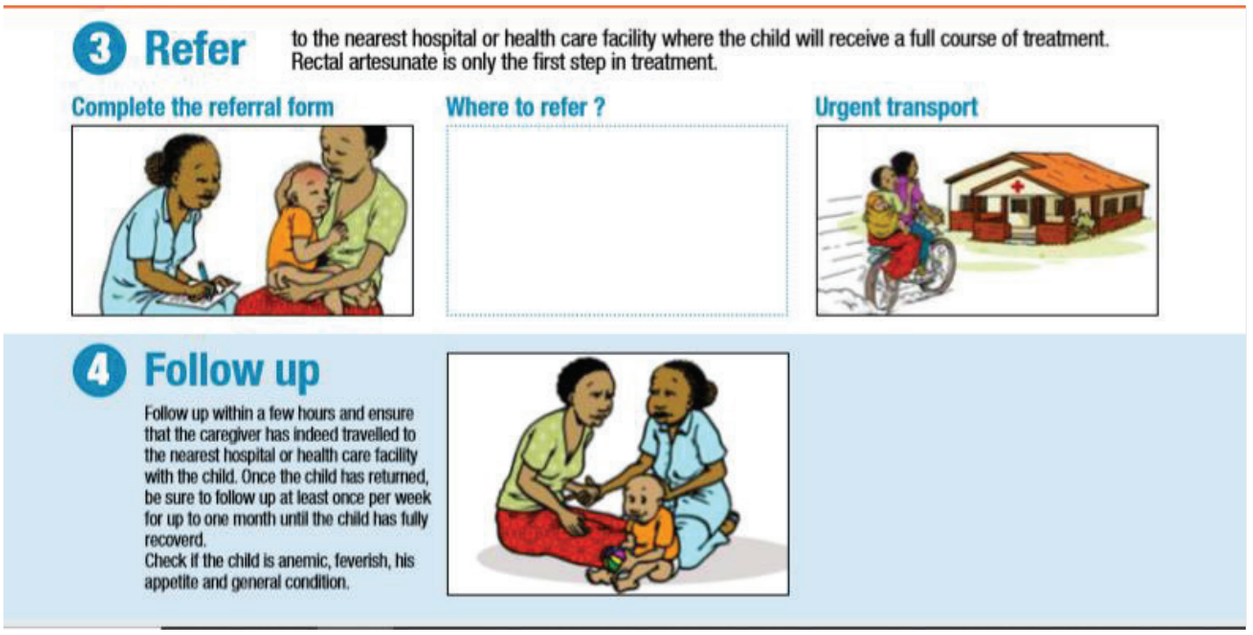
- The treatment of malaria depends on severity
- For severe malaria, the iCCM provider will assess and provide pre referral management of rectal artesunate and refer the patient to the affiliated health facility
- Rectal artesunate is recommended for children aged 6month up to 6 years as shown below

Administration of Rectal Artesunate pre-referral management.









- Client tested for mRDT and confirmed positive with uncomplicated malaria will be treated using oral antimalarial drugs i.e., artemether /lumefantrine based on kilogram in body weight. ACTs remain the drugs of choice for the treatment of uncomplicated malaria.
- Artemether-Lumefantrine (AL) is the medicine of choice for uncomplicated malaria.
- Other alternative Dihydroartemisinin-Piperaquine (DP) and Artesunate-Amodiaquine (ASAQ).
- The minimum recommended duration of treatment must always be 3 days.

Dosage schedule for AL is based on body weight or Age group.

		Day 1		Day 2		Day 3	
Kg	Dose	1st	2nd	3rd	4th	5th	6th
	Hours	0 (*)	8	24	36	48	60
	Age (years)	tablets	Tablets	tablets	Tablets	Tablets	Tablets
5 up to 15	0 to 3	1	1	1	1	1	1
15 up to 25	3up to 8	2	2	2	2	2	2
25 up to 35	8up to 12	3	3	3	3	3	3
35 and above	12 and above	4	4	4	4	4	4
(*) 0 hours means the time of starting medication (see appendix D for time schedule for 1st and 2nd dose)							

For practical purposes, a simpler dosage regimen is recommended in order to improve compliance: the first dose should be given as DOT; the second dose should strictly be given after 8 hours; subsequent doses could be given twice daily (morning-evening) in the second and third day of treatment until completion of 6 doses

Management of Diarrhea

Diarrhoea is loose, watery stools that occur three or more times in 24 hours. Diarrhoea is usually caused by a virus, or sometimes, contaminated food. Less frequently it can be a sign of another disorder.

Diarrhea screening.

iCCM provider will screen the child by asking if the child is having diarrhoea, and if the response is yes then the iCCM provider will ask for frequency, assess, look and feel the sign and classification of dehydration.

The following are the signs of severe and some dehydration.

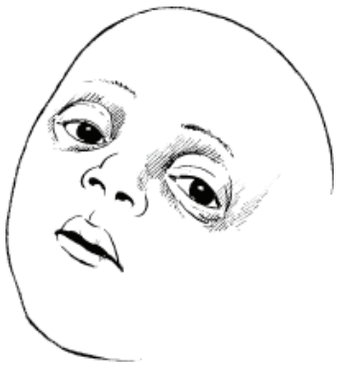
Signs of severe dehydration.

- Sunken eyes
- Skin pinch goes back very slow
- Lethargic
- Unconsciousness
- Not able to drink or breastfeed

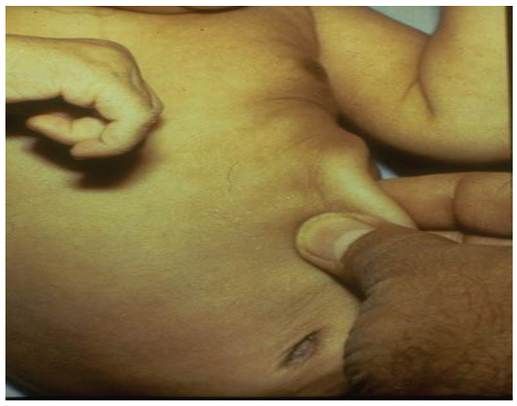
Signs of some dehydration

- Irritable or restless
- Drinks eagerly
- Sunken eyes
- Skin pinch goes slowly

Look for Sunken eyes.



Skin pinch goes back very slowly.



N.B if the iCCM provider notice signs and symptoms for severe and some dehydration give ORS and zinc supplement then refer to nearby health facility immediately

Treatment of Diarrhea with no dehydration

If the iCCM care provider observes no signs of severe dehydration, then the management will be given to the child under treatment plan A.

PLAN A. TREATMENT OF DIARRHOEA BY iCCM CARE PROVIDER.

The iCCM care provider will counsel the mother on the 4 R of Home Treatment.

1. Give extra Fluids
2. Give Zinc Supplements (age 2 months up to 5 years)
3. Continue feeding
4. When to return

i. Give extra Fluids

iCCM provider will advise the mother to give home treatment to a child who has diarrhoea with NO DEHYDRATION.

- Give fluid frequently
- Breastfeed the child exclusively if less than 6months old. Tell the mother to breastfeed frequently and for longer at each feed.
- If the child takes other food, then ask the mother to give extra home-made food-based fluid. Such as fresh water, ORS, rice water, coconut water.
- To prevent dehydration, ask the mother to give 10-20 teaspoons (50-100ml) ORS to children less than 2years old, and 20-40 teaspoons (100-200ml) ORS to children more than 2years old. Also give food-based liquid available at home.
- If the child vomits then wait for 10minutes and then give ORS again but more slowly. Give fluid and ORS until diarrhea stops.
- Give normal food along with liquid to a child with diarrhoea. Forbid the mother to give harmful liquid.
- Use the prepared ORS within 12hours

ii. Give Zinc Supplements

Give Zinc tablet along with ORS in diarrhea treatment

Dose of Zinc tablet:

Give Zinc supplement age 2 year up to 5 years.

AGE	ZINC TABLET	DURATION
	20MG	
2 months up to 6 months	½	10 days
6 months up to 5 years	1	10 days

SHOW THE CARETAKER HOW TO GIVE ZINC SUPPLIMENTS

Infants: dissolve tablets in a small amount of expressed breast milk. ORS or clean water in a cup.

Order Children: Tablet can be chewed or dissolved in a small amount of clean water in a cup.

iii. Continue feeding

iCCM care provider will encourage the caretaker to give the child as much food as the child wants. If the child is unwilling to eat, then offer him food repeatedly. Ask the mother to increase the amount of food when the child gets better which will help to make up any deficiency caused by the illness

iv. When to return

The iCCM care provider will advise the caretaker to send the child immediately to the health center if any of the following signs arises.

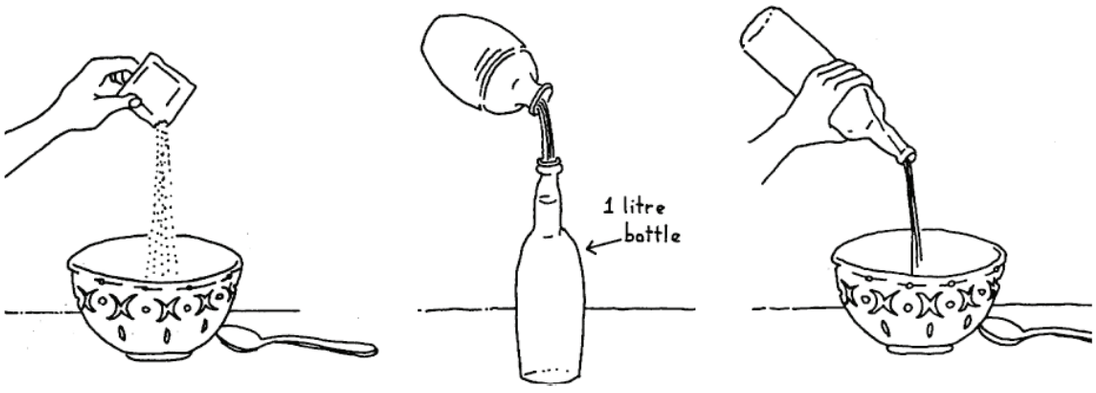
- If the child is unable to drink or breastfeed
- If the child gets worse
- If there is blood in the stool
- If the child drinks poorly

v. Treatment of Diarrhea with Blood.

Diarrhea with blood can be due to Bacteria Shigella, the iCCM care provider will give pre referral management of Ciprofloxacin 15 mg/kg body weight, and ORS plus Zinc supplements then give referral to the nearest health facility for further management.

vi. Treatment of Persistent diarrhea.

If the child's diarrhea persists for two weeks or more then the iCCM care provider will refer the child to the nearest facility for further management.



Preparation of ORS at home.

Pneumonia.

Cough or difficulty in breathing are the main reasons why care takers bring their children for medical help. Often it can be due to cough or flu and sometimes it can be due to a major illness due to pneumonia. In a community level, iCCM care provider can help the child by providing rapid assessment and give management and counsel to the caretaker to prevent deterioration of the disease.

Screening for pneumonia

The iCCM provider at the community level will ask the caretaker about presence of cough, its duration and any signs of difficulty in breathing. After assessment the iCCM care provider will make classification of the degree of pneumonia.

Signs and Symptoms of pneumonia

- Cough
- Chest in drawing
- Fever
- Fast breathing

Age (month	Fast breathing is
2months up to 12 months	50 breaths per minute or more
12months up to 5 years	40 breaths per minute or more

Signs and Symptoms of severe pneumonia

- Any danger signs
- Stridor in a calm child
- Severe respiratory distress

The iCCM provider, after assessment and classifying severity of pneumonia, treatment of pneumonia will be given.

Pneumonia treatment,

- give Amoxicillin DT, 40 mg per kg bid for 5days
- Paracetamol 15 mg per kg TDS for 3days
- Follow up for 3days if no improvement refers to the health facility, for severe pneumonia immediate referral should be given.

First line Antibiotic is Oral Amoxicillin.

Age or weight	**AMOXICILLIN** ***Give two times daily for five days.***
	Tablets 250 mg
2 months up to 12 months (40 to <10 kg)	1
12 months up to 3 years (10 to <14 kg)	2
3 years up to 5 year (14 up to 19)	3

***Amoxicillin DT is the recommended first line drug of choice in the treatment of pneumonia due to the efficacy**

Referral Management:

Referral management will be provided at the community level. The iCCM care provider will coordinate the referral to the nearest health facility through available transport based on the following conditions.

The iCCM care provider will fill the patient register referral comments and fill the referral form with the feedback area before allowing the client to the affiliated health facility.
The affiliated health facility will receive the patient with referral form treat the patient and fill them for feedback and return them to iCCM care provider in monthly basis during submission of the report.

1. The patient with severe Malaria.
2. Febrile illness with negative mRDT.
3. A child has less than 28 days of life with fever.
4. Persistent fever on treatment for 24 hours.
5. Pregnant women who have fever. i.e temp >37.5
6. Patient with moderate or severe dehydration, bloody diarrhoea
7. Client with severe pneumonia or persistent cough for more than 2 weeks
8. If the commodities are out of stock.
9. Any patient with danger sign

INFECTION PREVENTION AND CONTROL

Infection prevention and control is a scientific approach and practical solution designed to prevent harm caused by infection to patient and Health care workers. The overall goal is to achieve safe, effective health care practises at all levels of the health care services.

The iCCM provider, through provision of services at the community will generate wastes which includes sharp objects, papers, soiled swab, blood transfer device, gloves, used mRDT cassette. All these wastes may be highly infectious and hazardous if left unhandled, therefore the iCCM provider will be required to handle all wastes generated from the community services area using safety box and yellow plastic bag.

The iCCM care provider will collect all sharps through safety box when it is three quarterly full and other generated wastes by use of color coded bin liner from their service areas and return them to the health facility for treatment and disposal,

The following are components of IPC

- Hand washing
- Cleaning of working area
- Disinfection
- Use of personal protective equipment

Waste management including handling of sharps instruments and soiled swabs (safety box, colour coded bin liner)

Storage of health care waste

- All waste collected from the community health services facilities shall be stored in storage bay prior to disposal. Storage bay shall not cause or create nuisance in a work environment.
- The site of the storage bay shall not be waterlogged
- Bags and containers shall be leaking proof
- Cleaning equipment, PPEs, waste bags and containers shall be located conveniently close to the storage area.

Transportation of healthcare waste.

iCCM provider will transport generated wastes from the community services such as safety boxes containing sharps filled 75% and yellow coded bin liner with used swabs to the nearest health facility for disposing.

During transportation, the iCCM provider will be required to adhere to the following

- Consignment forms for hazardous waste shall be correctly and thoroughly filled in and safely kept.
- Waste transportation bags should be intact to avoid spillage of waste.

Color coding for different health care waste categories

	highly infectious,	Anatomical waste, blood, body fluids, pathological waste, culture materials, stocks, petri dishes, waste from isolation ward or camp.
	Infectious wastes and sharps wastes-safety boxes.	Used gloves, dressing materials, specimen containers, infusion packages, catheters, urinal bags. Used Syringes and needles, surgical blades, scalpels, , needles, scalpels, prickers, blades, broken glass (e.g., pipettes, ampoules, vials)
	non-infectious	Paper, packaging materials, plastic bottles, food remains, boxes, cartons

METRO

HEALTH COMMODITIES SUPPLY CHAIN

Health Commodities

- Health commodities include medicines, medical supplies such as, gloves, cotton wool thermometer, and laboratory/diagnostic consumables like mRDT, ORS, zinc, Amoxicillin DT, paracetamol.

Health Commodity Supply Chain:

- Are the activities including ordering, transportation, storage and administer of medicine and medical supplies required to deliver health commodities to the consumer.
- The iCCM care provider will conduct ordering the commodities from the nearby health facility, then the iCCM provider will transport issued commodities from the health facilities to the community on a monthly basis. In the community the commodities will be stored at the village office, or any place identified by village leaders until administered to the patient when needed.
- The iCCM care provider will ensure consistent availability of commodities by keeping records that will support ordering of required stock.
- The iCCM care provider will monitor day to day the quality of medicine and medical supplies i.e., short expired and return them to the health facility to be redistributed.
- Storage conditions for health commodities include:
  - Recommended room temperature
  - Away from sunlight
  - Out of reach of children
  - Rodent proof
  - Moisture proof

Recording and Reporting

- The iCCM care provider will request malaria commodities and other working tools from the affiliated health facility and store them in their respective working area.
- The affiliated health facility incharge will issue malaria commodities and other working tools to the iCCM care provider through issue vouchers and its copies handed together with their supplies. The iCCM care provider should keep records of issue vouchers in the respective files at the working areas ready for auditing.
- iCCM care provider will record day to day services offered to the clients and submitting report to the affiliated health facility before 5th of the next month to the nearby health facility.
- iCCM provider will record client particulars (name, age, sex, and address) in the community register, tests performed, results of the test, diagnosis, treatment and remarks (referral)
- in the tally sheet, the iCCM provider will record total clients attending daily per age category, mRDT tested, clients tested positive, and medicine dispensed (AL, co-pack, and Amoxicillin DT)
- From the community register, the iCCM provider will prepare monthly report of the client served, medicine dispensed and mRDT used to be submitted to the affiliated health facility
- The health facility will compile data and enter into the DHIS2 data base
- Ledger for commodities will be updated frequently when supplies are issued, and physical count done and reported on monthly basis.

CHAPTER 5: MONITORING EVALUATION AND RESEARCH

This section outlines the monitoring, evaluation, research mechanisms and structures that will be utilized in the implementation of iCCM intervention. The complex nature of the intervention requires harmonization and integration of packages for monitoring so that the framework for monitoring allows for timely and accurate collection of data on service delivery, human resource development, supportive supervision, disease morbidity, mortality, and their causes.

The main purposes of this section are:

(i) To explain how iCCM intervention will be monitored, aiming to determine whether the intended results are being achieved effectively.

(ii) To define data sources that will be used to verify the results achieved and to ensure the liability of information gathered.

(iii) To establish a clear data generation process, outlining roles and responsibility of key stakeholders involved in monitoring and evaluation efforts.

(iv) To create a systematic process to promptly alert implementers and stakeholders of any challenges and progress encountered during implementation. This will serve as the basis for making necessary adjustments to improve the intervention's effectiveness

(v) To describe the various information products such as reports, finding from operation research and other written documentation that will be produced and disseminated to stakeholders, internal and external audiences.

STRUCTURE FOR M&E OF iCCM IMPLEMENTATION

The iCCM intervention will be implemented at the community level with oversight and technical support from affiliated health facilities. R/CHMTs will collaborate with the national level, development and implementing partners to monitor service delivery and progress towards targeted results by executing the identified roles and responsibilities.

National Level

The Ministry of Health (MoH) will coordinate monitoring, evaluation and operational research activities at national level. The activities to be carried out will include;

- Selection, development and dissemination of the iCCM intervention monitoring indicators covering each level i.e. impact, outcome and outputs.
- Prioritize and include the selected indicators in surveys such as Tanzania Demographic Health Survey-Malaria Indicator survey
- Incorporate the selected indicators in national level reference materials such as the National Health Sector Strategic Plan; National Plan for Reproductive Maternal, Newborn Child and Adolescent Health and Nutrition and National Malaria Strategic Plan.
- Conduct baseline survey establishing benchmark for progress monitoring.
- Conduct field monitoring visits in regions, councils, affiliated health facilities and iCCM sites.
- Establish data management systems to collect routine, programmatic and supportive supervision data.
- Establish capacity building mechanism to support region and council management teams in data management including data quality and verification for consistent monitoring on iCCM interventions.

- Develop costed budget and mobilize resources to support implementation of iCCM
- Conduct review meetings with key national partners and representatives from the regions and districts to identify any issues with iCCM implementation and take timely action. These meetings will also disseminate best practices and act as a peer review forum for assessing progress and identifying barriers to achieving iCCM targets

Regional level

The RHMT will be responsible for monitoring the implementation of the iCCM program by the districts and implementing partners. The activities to be carried out with RHMT include:

- Conduct council, affiliated facility and iCCM site data quality assessment and verification and provide feedback and action points for improvement.
- Host data review and feedback meetings with councils, to discuss implementation progress, challenges and actions points for improvement.
- Liaise with other regions and implementing partners, learn and adapt the best practices and action points used to improve service delivery and monitoring.
- Compile and share regional budget on iCCM operating costs to national level as costed by the council level.
- Capacitate district councils and health facilities in monitoring iCCM implementation.
- Aggregate, analyze, interpret and use iCCM service delivery including referrals, commodity consumption, supportive supervision findings and service utilization data

Council Level

The CHMT will be responsible for monitoring activities in the affiliated facilities and community, including support provided to health facilities (HFs), using monitoring tools at least once a month. The CHMT monitoring team will review the quality of submitted data. The activities to be carried out with

CHMT include:

- Develop plans specifying the frequency of monitoring visits, the allocated funds, and the person responsible for monitoring all iCCM activities. The activities to be monitored include training of iCCM providers, supply, and distribution of iCCM commodities, management of referred cases and record-keeping, and supportive supervision of iCCM providers.
- Provide data management support to affiliated health facilities and iCCM providers.
- Compile and share with the regional level affiliated facilities costed budgets that includes operational costs from iCCM sites.
- Conduct data quality assessment and verification at both affiliated facility and iCCM site.
- Host data review and feedback meetings with affiliated facilities, iCCM providers, community members to discuss implementation progress, challenges and actions points for improvement.
- Aggregate, analyze, interpret and use iCCM service delivery including referrals, commodity consumption, supportive supervision findings and service utilization data.
- Update mapping for iCCM providers. The updates will include new villages with new iCCM providers trained to implement the iCCM strategy. The updates will also help track the attrition of iCCM providers and will be sent to the regional and national levels for reporting purposes.

Health Facility Level

Monitoring of iCCM implementation in the intervention sites from the affiliated facility is important and requires adequate support. Affiliated health facilities need to;

- Identify iCCM site focal person and develop plan for monitoring and visits outlining the frequency
- Provide data management support to iCCM providers to ensure accuracy, completeness and consistency of service delivery data.
- Review and verify submitted reports
- Timely compilation and submission of iCCM sites reports
- Store the iCCM sites submitted summary reports, referral forms, commodity request and delivery forms
- Include iCCM sites operation costs such as data collection tools and data bundles in health facility budget
- Conduct data quality and verification assessment to iCCM sites

Community Level

The community plays a fundamental role in carrying out the iCCM since iCCM providers provide health care services, generate and report data to other levels for aggregation, interpretation and use hence they need to adhere to;

- Accurate, complete and consistent documentation of service delivery information including referrals.
- Proper storage of data collection (recording) tools and devices.
- Timely preparation and submission of service delivery data reports to affiliated facilities
- Ensure consistent availability of data collection (recording) tools and devices for data generation and reporting.
- Outline operating costs such as data collection tools and data bundles, and share with affiliated facility for budgeting

Development and Implementing Partners

Development and implementing partners collaborate with national, regional, council, health facility and community levels to contribute to the milestone of iCCM interventions through;

- Technical and financial assistance in the overall implementation of iCCM i.e., roll out trainings, data collection tools and devices, supportive supervision, printing of standard operating procedures e.tc.
- Reviews and recommendations of best practices national and international to be adopted for the improvement of the iCCM intervention.
- Timely submission of implementation reports to coordinating entities.

iCCM service Indicators

SN	Indicator Area	Objectives	Indicators	Definition	Type of indicator	Target	Roles and Responsibilities	Data source	
1 Policy and coordination									
i	iCCM guideline	iCCM is incorporated into national policy to allow iCCM provider to give • Low osmolarity ORS and zinc supplements for diarrhea. • Antibiotics for pneumonia. • ACTs (RDTs where feasible for malaria.	Availability of national guideline for implementation of iCCM in Tanzania.	National policy guidelines have been developed to allow iCCM providers to implement iCCM services.	Input	2024	MoH	MoH policy, guideline	
		Standard implementation materials and template developed for iCCM: • Training manual • Job aids • Supervisory checklists • M&E tools • IEC materials	Availability of standardized implementation materials for iCCM.	iCCM implementation materials have been developed and adopted.	Input	2024	iCCM taskforce /MoH	Minutes of iCCM task force	
ii	iCCM coordination	An iCCM taskforce led by the MoH including key stakeholders exists and meets biannually to coordinate iCCM activities.	A functional iCCM taskforce at national level	MoH led by iCCM taskforce established and meeting as outline in terms and references bin-annually.	Input	Biannual meetings	MoH	Minutes of taskforce meeting	

2. Human Resource									
i	Training of program managers as master trainers for iCCM.	Targeted master trainers at national level in iCCM.	Number of trainers certified as TOT per Number of trainers targeted for iCCM	Number of trainers certified as national TOT on iCCM.	Output	Annual	MoH	Training reports	
ii	Trained iCCM provider trained.	Trained iCCM provider trained in iCCM at the community.	Number of iCCM providers trained.	Numerator: Number of iCCM providers targeted who have completed training in iCCM. Denominator: Number of iCCM providers targeted in iCCM.	Output	Quarterly	MoH	iCCM reports	
3: Supply Chain Management									

i	Medicine and diagnostic availability (affiliatefacility).		Proportion of affiliated facilities that had no stock out of recommended medicines and diagnostics during the day of assessment or the last day of reporting period.	Numerator: number of affiliated with all key iCCM medicines and diagnostics in stock during the day of assessment or the last day of reporting period. Denominator: Number of affiliated assessed.	Output	Monthly/Quarterly	Health facility incharge	Supportive supervision report/ eLMIS	
			Proportion of iCCM provider who had no stock out of the recommended medicines and diagnostics during the day of assessment visit or last day of reporting period	Numerator: Number of iCCM providers with all key medicines and diagnostics in stock during the day of assessment or the last day of reporting period. Denominator: Total number iCCM provider assessed.	Output	Quarterly	Health facility in charge	Supervision check-list/Observation	

4.Service Delivery and Referrals									
i	Treatment		Percentage of sick clients who received appropriate treatment according to iCCM protocol.	Numerator: Number of sick clients with an iCCM condition that received appropriate treatment. Denominator: Number of sick clients with iCCM condition.	Output	Periodically	MoH	Registers	
ii	Successful Referral		Proportion of sick clients recommended for referral who are received at referral facility.	Numerator: Number of referred cases received in the referred facility from iCCM provider. Denominator: Total number of cases referred according to iCCM protocol.	Output	Quarterly	MoH	Supervision checklists/ Referral forms.	

5.Communication for Social Behavioral Change(SBC)									
i	Community knowledge of iCCM provider.		Proportion of individual from the community in target areas who can descibe the location, role and role of their iCCM provider.	Numerator: Number of individual from targeted community who can describe the location, role and services provided by iCCM provider. Denominator: Total number of individuals interviewed from target population.	Output	Quarterly	MoH	Survey	
6.Supervision and Quality Assurance									
i	Routine supervision coverage		Proportion of iCCM providers who received at least one administrative supervisory contact in the past 3months.	Numerator: Number of iCCM provider who received at least one administrative supervisory prior 3months Denominator: Number of iCCM trained.	Output	Quarterly	MoH	Supervision checklist	
ii	iCCM utilization indicator included in HMIS		One or more indicators of community-based treatment for iCCM are included in the national HMIS system.	One or more iCCM indicators are included in the national HMIS system.	Input	Annual	MoH/HMIS	HMIS tools and reports	

Data Management:
Data Collection tools

iCCM intervention will collect data from routine service delivery, supportive supervision, human resource development, sensitization and mobilization activities and surveys evaluating service coverage and outcome. Data will be collected at different levels of service and activity implementation.

Surveys on evaluation of coverage and outcomes from the iCCM interventions will be collected integrative with the Tanzania Demographic Health Survey-Malaria Indicators survey (TDHS-MIS)
Reporting iCCM provider will collect service delivery data on daily basis as per the provided health services. Data will be recorded in registers, UCS system and tally sheets daily and summarized in a report every month. (See Annex 1)
Supportive supervision data will be collected by national/regional/council/ health facility supervisor through a structured checklist. The structured checklist will be employed into an electronic version in MSDQI for systematic reporting, storage, and feedback for follow-up.
Human resource development data involves information on trained personnel (iCCM providers), supervisors and trainers from national, regional, council and health facility levels that will be collected per activity through a structured participant form.
Sensitization and mobilization data will include people reached with social behavior change activities, advocacy meetings conducted at either national, regional, or council levels that will be collected per activity structured reports.
Capacity building: provide capacity to stakeholders on data collection and analysis, reporting, data use, quality assurance, supervision, and mentorship.

Unified community system (UCS)

The Unified community system (UCS) is built on an Open Smart Register Platform (OpenSRP). This system aims to create a comprehensive, single community health system that encompasses all essential components. The UCS system comprises three components: the WAJA application for community healthcare workers, the KITUONI application for facility healthcare workers, and reporting tools for managers to analyze data and make decisions.

The system is designed to work offline and online, allowing for data collection in areas with poor internet connectivity and later synchronization to the server. The WAJA application, a core component of the UCS, supports the responsibilities of Community Health Workers (ICCM providers) in their catchment area, including Registration, Referral, follow ups, Malaria integrated community case management, children under five, Community Based HIV Services (CBHS), HIV community case management and PMTCT community case management.

The UCS adhere to data privacy and security through the following aspect:

- UCS uses a secure login system to authenticate users, and only authorized users can access client data. User access levels are defined and managed by the system administrator, ensuring that only those with a legitimate need to access client data are granted permission to do so.
- UCS uses encryption to protect client data both in transit and at rest. This means that data is encrypted as it travels over the network and is also encrypted when it is stored on servers or mobile devices. This ensures that even if someone were to intercept the data, they would not be

able to read it without the encryption key.

- UCS has implemented strict data access controls and audit trails. This means that any access to client data is logged and audited, and system administrators can track who has accessed what data and when. This helps to deter unauthorized access to client data and provides a means of identifying any potential breaches.
- UCS provides training and guidance to users on best practices for maintaining client confidentiality and privacy. This includes guidelines on how to handle and store client data securely, and how to respond to any potential breaches or incidents.

Composite Database

Is a database that collect, store and visualize non-routine data, it includes surveys (SMPS, TES, MVS) and programmatic activities (SNP, T/FRC, IRS, CBS, LSM and supportive supervisions) non-routine data is captured through a composite database for malaria. This database is currently operated offline though. Composite database will be integrated with unified community system to submitted aggregated data from community.

iCCM Overview of Data Flow, Roles and Responsibilities and Forms by System Level

The routine indicators for iCCM can be collected through the iCCM register, tally sheet, and summary form. The iCCM registers will combine data that were recorded in OPD,mRDT testing and dispensing register. Summarized paper forms will be submitted to the affiliated health facility on monthly basis for data quality and consistency check, this summary form will not be submitted to DHIS2. By using mobile platform iCCM provider will enter patient record to Unified Community System (UCS) on daily basis. The UCS will validate and generate the aggregated data and synchronize it to a composite database. The aggregated data will be visualized in composite database. The selected indicators will be integrated with DHIS2 (Malaria Dashboard) to access the impact of iCCM on the affiliated Health facilities. Figure 1. The iCCM supervision checklist will be created in MSDQI as a new module and integrated into a composite database. The information collected by these key tools is summarized in Table 3.

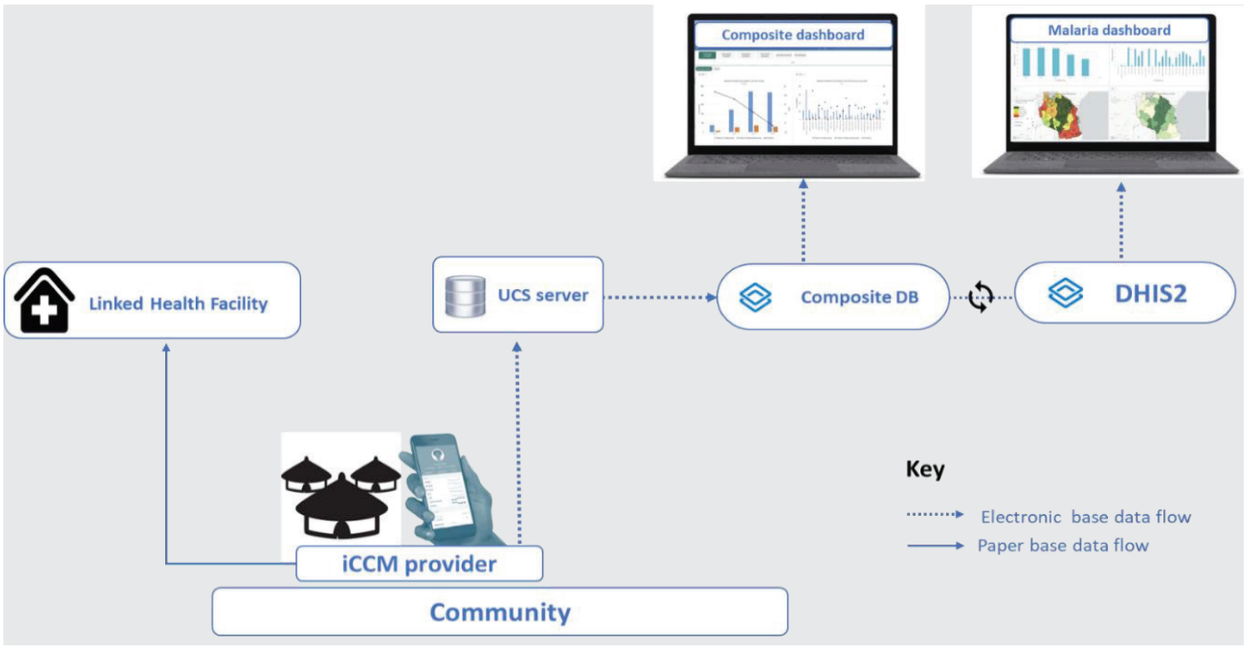


Figure 1:iCCM data flow

Table 1:iCCM Data flow

Level	Main data collection & reporting responsibilities	Data collection & reporting forms
Community-iCCM providers	Tracks services provided and commodities received and consumed. Prepare monthly report and submits to Affiliated Health Facility Daily submit report to composite database through the Unified Community System (UCS) mobile platform (WAJA app)	○ iCCM register, tally sheet, summary. ○ Ledger, Issue Voucher, ○ Referral form NB: iCCM register will combine data that was recorded in OPD, Lab and dispensing register.
Affiliated Facility – Facility in-Charge	To conduct monthly community follow up visits to iCCM provider at least first three months after training to quickly identify the problems and proffer solutions as well as to coach those with difficulties.	iCCM supervision checklist that will be included as module in MSDQI
Regional/District Councils- R/ CHMTs	Supervise affiliated facilities and iCCM providers according to quarterly and document using iCCM supervision checklist. Review submitted data in composite database.	iCCM supervision checklist, composite database
National – M&E	Review, prepare reports and provide feedback to Region and District Councils other stakeholders	iCCM supervision checklist, composite database

Baseline assessment (Mapping) and Evaluation plan

A national baseline survey will be carried out in selected districts to evaluate the progress and effectiveness of the iCCM program. To ensure consistency, the iCCM task force will collaborate with implementing partners to standardize the tools used for the baseline survey based on agreed-upon indicators. The same tools will be used every two years to assess selected input, process, and outcome indicators. The results will be shared at the national, regional, and district levels, and policy briefs will be created and distributed based on the findings.

Mapping of iCCM site includes:

- **Develop a map:** Use the collected data, micro stratification to develop a map of the iCCM sites, including the location of health facilities, iCCM providers, and other key stakeholders. This map can be created using geographic information systems (GIS) software, population explorer or other mapping tools.
- **Verify accuracy:** Verify the accuracy of the map by conducting site visits to confirm the locations of the iCCM sites and identify any additional sites that may have been missed during the

data collection process.

- **Update the map:** Update the map as needed to reflect changes in the location or status of iCCM sites, such as the opening or closing of health facilities or changes in the number or location of iCCM providers.

Operational Research: Propose priority areas for research that will improve the iCCM intervention.

The iCCM task force will develop a research agenda in collaboration with R/CHMT, training and research institutions, implementing partners especially as they relate to coverage, quality, utilization, and compliance with the high impact interventions. The operations research agenda will be based on analysis of monitoring, supervision, and evaluations.

CHAPTER 6: COSTING AND FINANCE

TABLE 1: IMPLEMENTATION OF iCCM

SN	Activity	Description
1	Human resources	• Monthly stipends for iCCM service providers • Airtime
2	Institutional coordination	Costs for running iCCM task meetings • Per Diem and transport for members/participants • Conference package
3	Advocacy, Sensitization and mobilization	Costs for advocacy, sensitization and mobilization meetings according to levels; National level • Per Diem and transport for members/participants • Conference package • Printing of guidelines and • Prepare and print policy briefs Regional level • Per Diem and transport for members/participants • Conference package • Printing of guidelines • Prepare and print policy briefs Community level • Per Diem and transport for members/participants • Conference package • Prepare and print reference materials
4	Capacity building	Training of national TOTs • Training materials • Stationeries • Venue with LCD (Conference package) • Per Diem and transport reimbursement for participants and facilitators • Clinical attachment logbook
		Training of region-based TOTs • Training materials • Stationeries • Venue with LCD (Conference package) • Per Diem and transport reimbursement for participants and facilitators • mRDT, AL, Amoxicillin DT, Zinc-ORS co-pack • Clinical attachment logbook

		Training of iCCM service providers • Training materials • Stationeries • Venue with LCD (Conference package) • Per diem and transport reimbursement for participants and facilitators • mRDT, AL, Amoxicillin DT, Zinc-ORS co-pack • Clinical attachment logbook
5	Supportive supervision	• Transport facilities (vehicle and fuel) • Per Diem for supervisors • Printing for supportive supervision checklists Note: Supportive supervision cost items are similar at all levels.
6	Package for iCCM service provider	• Means of transport • Clinical thermometers • Patient weighing scale • Backpack • Record books • Commodity and supplies storage tool e.g., Toolbox • Identity card • Rain boots and coats • Smartphones • Reflectors

TABLE 2: Service Delivery

S/No		ITEMS
1	Equipment	Bicycle
		Raincoat
		Boots
		Dust bin
		Bin liner
		Safety box
		Recording or Reporting tools
		Toolkits
		Cup and spoons
		Uniform
		Stopwatch (timer)
		Weighing scale
2	Medicine and Medical Supplies	Rectal artesunate
		thermometer
		paracetamol
		Artemether lumefantrine
		Zinc supplements
		ORS
		Amoxicillin DT
		Clean gloves
		Ciprofloxacin
3	Stationary	Service registers, Tally sheet and Reporting form
		Ledger
		Issue vouchers
		Waste reporting forms
		Referral forms

TABLE 3: MONITORING EVALATION AND OPERATIONAL RESEARCH.

The cost of each component can vary depending on the location, the level of expertise required, the availability of resources, and the scale of the iCCM program. Therefore, it's essential to conduct a detailed assessment of the program's requirements and expected outcomes before estimating the cost of each component.

SN	Activity	Cost Description
1	Data Collection Methods	• Surveys: Cost of printing and distribution of survey materials, hiring survey administrators, and transportation costs. • Actual field implementation of survey: Cost of hiring interviewers, training them, and transportation costs. • Focus Group Discussions: Cost of organizing focus groups, hiring moderators, and transportation costs. • Routine data collection: Cost of data management software, tools for data collection, and training.
2	Data Management and Analysis	• Cost of data management software and visualization tools. • Cost of data analysis tools. • Cost for data review meeting at National, regional, council and health facility level • Cost of conducting supportive supervision.
3	Monitoring and Evaluation Infrastructure	• Cost of equipment: Computers, tablets, smart phones, cameras, and so on. • Cost of office space.
4	Training and Capacity Building:	• Cost of trainers. • Cost of training materials. • Cost of transportation and accommodation for participants.
5	Miscellaneous:	• Cost of program management and coordination.

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ANNEXES

Annex 1.

REJESTA YA WAGONJWA WALIOHUDUMIWA KWENYE JAMII

*	1	2	3	4	5			6	7	8	9	10				11													12	13
	Na				Umri					Dalili za hatari		Kipimo cha Malaria (Weka alama ya √ panapohusika)				Diagnosis na Matibabu													Rufaa	Maoni
																Malaria					Pneumonia				Kuharisha					
		Tarehe	Jina la mgonjwa	Mahali Anapoishi Kijiji/Kitongoji	Siku	Miezi	Miaka	Jinsi (ME/KE)	Uzito (KG)	Je ana dalili walau moja kati ya zifuatazo; hawezi kunywa au kunyonya, anatapika kila kitu, ana degedege sasa au amepata degedege katika ugonjwa huu, amelegea sana/hana fahamu (Weka alama ya √ kama ndio na utoe rufaa haraka na kujaza safu namba 12, acha wazi kama hapana)	Amepimwa mRDT? (N/H)	Control	Pan	Pf	Tafsiri (Pos au Neg)	Malaria (Weka √ kama diagnosis ni malaria)	Matibabu ya Malaria (andika idadi ya vidonge vilivyotolewa kwenye kundi husika la ALU)				Je, mtoto anapumua haraka? Pumzi 50 au zaidi kwa dakika kwa umri wa miezi 2 hadi 12, Pumzi 40 au zaidi kwa umri wa miezi 12 hadi miaka 5 (Weka √ kama ndio, anapumua haraka)		Pneumonia (Weka alama ya √ kama ana Pneumonia	Matibabu ya Pneumonia – andika idadi ya vidonge vya Amoxillin DT vilivyotolewa kwa mtoto	Kama anaharisha na hakuna dalili za kuainisha upungufu wa maji na chumvi chumvi mwilini? (Weka √ kama ndio, acha wazi kama hapana)	Kama anaharisha na anahangaika/kulialia, macho kuingia ndani, anakunywa kwa shauku/kushindwa kunywa/kunywa kwa shida, ngozi inarudi polepole. (Weka √ kama ndio, acha wazi kama hapana)	Matibabu ya Diarrhoea			Andika sababu ya rufaa	
																	ALU 1 X 6	ALU 2 X 6	ALU 3 X 6	ALU 4 X 6	Anapumua haraka na hana dalili ya hatari, kifua hakiingia ndani na hakuna strido, Ana Pneumonia. Tibu kwa Amoxicillin DT, Weka alama ya √ kwenye safu hii, acha wazi kama ana dalili tofauti	Anapumua haraka na ana dalili ya hatari au kifua kuingia ndani au strido kwa mtoto aliyetulia, huyu ana Pneumonia Kali - Toa rufaa haraka, jaza safu ya 12			Ana Diarrhoea with no dehydration (Tibu kwa kutumia ORS and Zinc)	Ana Diarrhoea with some or severe dehydration. (Mpe rufaa haraka, mama aendelee kumpa ORS kidogo kidogo akiwa njiani)	ORS (Andika idadi ya pakiti)	Zinc (Andika idadi ya vidonge)	Zinc ORS Co pack (Andika idadi ya pakiti)		
	JUMLA YA VIDONGE AU PAKITI ZILIZOTOLEWA																													