



Mozambique Drug and Therapeutics Committee Workshop: Technical Report

September 2016



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SIAPS 
Systems for Improved Access
to Pharmaceuticals and Services

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About SIAPS

The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to ensure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. Toward this end, the SIAPS result areas include improving governance, building capacity for pharmaceutical management and services, addressing information needed for decision-making in the pharmaceutical sector, strengthening financing strategies and mechanisms to improve access to medicines, and increasing quality pharmaceutical services.

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Key Words

Drug and Therapeutics Committee, essential medicines, rational medicine use, medicine use study, standard treatment guidelines, prescription analysis, aggregate medicine consumption study

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ACRONYMS

DFH	Departamento de Farmacia Hospitalar (Hospital Pharmacy Department)
DNAM	Direcção Nacional de Assistência Médica (National Directorate of Medical Assistance)
DTC	Drug and Therapeutics Committee
EML	essential medicines list
MISAU	Ministério da Saúde (Ministry of Health)
RMU	rational medicine use
SIAPS	Systems for Improved Access to Pharmaceuticals and Services [Program]
SOP	standard operating procedure
STG	standard treatment guideline
TB	tuberculosis
TOR	terms of reference
TWG	technical working group
USAID	US Agency for International Development

INTRODUCTION

Inefficient and irrational use of medicines is a well-documented problem in both developed and developing countries. It leads to cost increases and adverse clinical effects for patients. The inappropriate use of medicine can be reduced if health care professionals involved in the different aspects of medicine use promote good practices for medicine management and use. An appropriate forum for the development and implementation of medicine policies is the Drug and Therapeutics Committee (DTC). The DTC is also a forum for promoting more efficient and rational medicine use (Green & Holloway 2003).

In Mozambique, the establishment of hospital DTCs was officially requested by the Ministério da Saúde (MISAU) (Ministry of Health) in the document called Diploma 29/2013. The Diploma states that all health facilities should have a DTC. It also guides the composition and functions of DTCs. The Departamento de Farmacia Hospitalar (DFH) (Department of Hospital Pharmacy) in the Direcção Nacional de Assistência Médica (DNAM) (National Directorate of Medical Assistance) of MISAU also took on the establishment of hospital DTCs as a priority intervention to improve the appropriate use of medicines at the hospital level. As of August 2013, 13 hospitals had established DTCs.

The Systems for Improving Access to Pharmaceuticals and Services (SIAPS) Program in Mozambique has been working with the DFH as well as partners in the pharmaceutical sector and in priority health programs to assist pharmaceutical services to improve the availability of pharmaceutical products and their appropriate use by service delivery points with the aim of achieving desired health outcomes. SIAPS has provided technical assistance to assist hospitals in establishing DTCs to improve medicine use, and in the collection and analysis of medicine use information for decision making as part of its support to counterparts in the pharmaceutical sector.

In August 2013, SIAPS supported the DFH to conduct a two-day DTC orientation workshop. The workshop was attended by 49 health professionals, including physicians, pharmacists, dentists, laboratory technicians, and hospital administrators from 10 of the 13 hospital DTCs, MISAU, and nongovernmental organizations that support clinical services and supply chain operations. The workshop covered: the DTC's main functions, roles, and responsibilities; how to monitor and identify rational medicine use (RMU) problems; and how to implement interventions and strategies, including the use of standard treatment guidelines (STG) and essential medicine lists (EML) to improve medicine use. Participants presented on the status of their hospital DTCs, reviewed Mozambique's current official terms of reference (TOR) for DTCs, and made recommendations for additions and modifications. With SIAPS technical guidance, participants also conducted a brief study on key indicators of prescribing practices at a clinic in Maputo. The study found that more than 60% of patients seen had received an antibiotic.

Prior to the orientation workshop, the DFH and SIAPS agreed to choose two hospitals¹ at which to pilot DTC activities. The objective was to document lessons learned from the pilot and use

¹ Hospital Geral Jose Macamo and Hospital Geral de Mavalane.

them to improve the quality of other DTCs. Following the DTC orientation workshop, SIAPS met with the DFH/DNAM and the two DTC pilot hospitals to discuss and identify medicine use problems and to plan interventions.

At the DTC orientation workshop and in meetings at the pilot hospitals, major issues regarding DTC status and medicine use problems were identified, as follows (Green 2013):

DTC Status

- DTCs are just beginning to set up their activities as a functioning committee. DTC members represented at the orientation workshop are enthusiastic and are motivated to implement a DTC, but they lack the necessary training and tools to do so at this early stage.
- Knowledge about the specific functions of a DTC is poor. The orientation workshop provided information, but much more is needed to fully prepare and train DTC members.
- A TOR for DTCs is currently available from MISAU. There are some contradictions in the TOR and important activities are missing. Participants at the orientation workshop made suggestions for expanding and improving the TOR.
- Standards (STGs, protocols) are limited in Mozambique; this will hinder the DTCs to rationalize medicine use. Where standards exist, they may not actually have been distributed or used in hospitals.
- Support from MISAU is provided for DTC implementation but it does not provide sufficient materials, financial support, and technical assistance.

Medicine Use Problems

- There is a shortage of essential medicines, including various antibiotics.
- Health professionals did not follow prescription regulations regarding codes, names, etc.
- Most of the medicines prescribed were antibiotics, non-steroidal analgesics and anti-inflammatories, and antimalarial medicines.
- Some STGs exist but not enough for the situation on the ground; there are many different providers at different levels from different countries, therefore, country standards are required for most diseases and medical conditions.
- Even though a national EML exists in Mozambique, it has never been disseminated. Hospital staff did not know that this document existed.

- There are insufficient staff to conduct medicine use studies and to address medicine use problems.
- Tools are lacking to implement medicine use interventions (i.e., training, medicine use studies, STGs, EML).

Based on these findings, SIAPS worked with the DFH to develop an action plan for strengthening DTCs, which included developing tools for medicine use studies and on-the-job training in implementing DTC activities. In July 2014, SIAPS and DFH agreed that SIAPS would provide technical assistance to review and develop the Hospital Pharmacy Guidelines and standard operating procedures (SOP) to enhance capacity in pharmaceutical management and services, including guidance on conducting medicine use studies at the health facility level. Since then, SIAPS has been supporting the DFH to draft SOPs and tools to measure or analyze the following medicine use issues:

- Medication errors (in-patients)
- Prescription problems (outpatients)
- Medicine use patterns (ABC/VEN analysis) at the health facility level

Once the SOPs were developed, SIAPS assisted the DFH to test the standards at Maputo Provincial Hospital. Following the hospital test, the DFH decided to improve and expand the implementation of medicine use studies to 10 more sites by conducting an initial on-the-job training followed by supportive supervision visits. In September 2016, the DFH and SIAPS organized a three-day workshop to allow DTCs to share information on their interventions, any unexpected or negative effects, and to restructure their interventions. In addition, the DFH decided to train DTC members on the main issues identified during supervisory visits.

Background and Objectives

Based on findings from meetings with the DFH/DNAM and the DTCs at the two pilot hospitals, in collaboration with the DFH, SIAPS/Mozambique prioritized three studies and started to draft the SOPs. Once the first draft was finalized, SIAPS conducted a workshop in April 2015 to review the SOPs with the DFH to ensure that they were consistent with existing approved guidelines and regulations. The two SIAPS staff and three DFH staff that participated in the workshop became the technical working group (TWG) responsible for testing the SOPs.

The TWG conducted a four-day DTC training from April 27 and 30, 2015 at the Matola Provincial Hospital. Nine of the hospital's DTC members attended as did one staff member from the DFH. The objectives of the training were:

- To support the DFH to build the capacity of Matola Provincial Hospital DTC members on how to monitor and identify medicine use problems.
- To have the DTC pharmacists participate in testing the draft SOPs in the following three areas:

- Medication errors
- Prescription problems
- Purchasing patterns (ABC/VEN analysis) at the health facility level

The objective of having DTC pharmacists participate in the test was to train them on how to conduct the studies, and to collect their input to improve the SOPs.

After testing the SOPs, the DFH decided to expand the methodology from Matola Provincial Hospital DTC to 10 additional hospital DTCs. Following one and one-half years of implementation, the DFH and SIAPS agreed to organize a forum at which the experiences of the DTCs could be shared, and to provide training to address the main issues identified during the supportive supervision visits:

- Noncompliance of facilities with treatment guidelines for most common diseases (malaria, anemia, gastroenteritis, and upper respiratory tract infections).
- Poor compliance with national documentation standards for preparing the clinical chart.

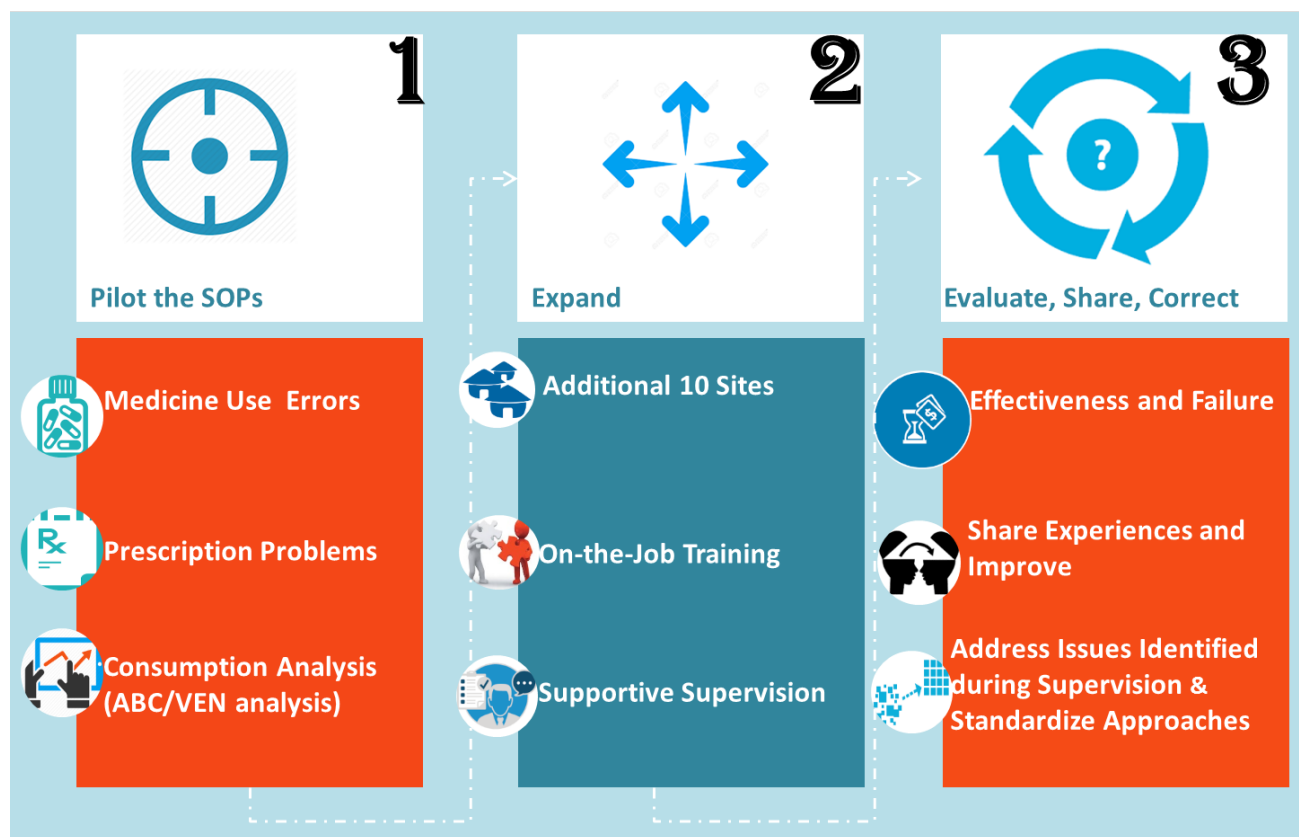


Figure 1. SOP testing and capacity building for DTC members

Drug and Therapeutics Committee Workshop

SIAPS and the DFH held a three-day DTC workshop in September 2016 at the Hotel Avenida in Maputo City (annex A). This forum allowed the DTCs to share information on their achievements and the challenges they experienced in the development of rational medicine use strategies. In addition, the forum provided an opportunity for the DFH to address the main issues identified during supervisory visits and to standardize approaches. Only DTCs that had developed a rational medicine use strategy were eligible to attend the workshop. Ten DTCs submitted applications, of which seven were selected to participate. A total of 107 participants, including physicians, pharmacists, nurses, nutritionists, laboratory technicians, and administrative professionals from the hospital DTCs and MISAU attended this workshop (annex B).

Preparations for the DTC workshop were conducted from August 15 to September 16, 2016. This included setting objectives and an agenda for the workshop, and developing application criteria, an application form, PowerPoint presentation slides, templates, and relevant handouts.

Selection criteria included documentation demonstrating that the DTC had developed a strategy using the six steps recommended by SIAPS.

Key topics for the workshop included:

- Participant presentations on their RMU strategies, identified problems, baseline data, interventions, results, lessons learned, and the way forward.
- Situation analysis of DTCs in Mozambique.
- Principles for rational prescription.
- Principles for developing and analyzing STGs.
- Overview of malaria and HIV treatment regimens used in Mozambique.
- General principles for the treatment of anemia, acute gastroenteritis, and upper respiratory tract infections.
- Inventory management: main challenges and countermeasures.

Day 1

During the opening session, Mr. Benedito Chauque, activity manager for SIAPS/Mozambique, presented on the program's activities in Mozambique since 2010. In response to the government's request to strengthen the pharmaceutical management system, DTCs were identified as a key area of support to improve access to medicines and pharmaceutical services in the country. The Director of the National Directorate of Health Care, Dr. Ussene Isse,

welcomed participants and expressed his concern regarding the over prescription of antimicrobials. He also highlighted the importance of DTCs to improve access to medicines.

Key activities during the day included presentations by the DFH on the DTC TOR, as stated in the Diploma document, and clarifying any doubt on its interpretation. This was followed by a presentation on progress in the national roll out of the DTC initiative since 2013. The day concluded with all DTCs presenting their strategies to improve medicine use at their hospitals (annex C).

Day 2

The second day was dedicated to promoting standardization and better prescribing practices for management of the most common cases at provincial hospitals. Key activities included:

- SIAPS presentation on general principles of therapeutics (annex E).
- Discussion (group discussion and plenary presentation) of clinical cases of upper respiratory tract infection, gastrointestinal infections, anemia, malaria, HIV, and tuberculosis (TB).

The first three cases were facilitated by SIAPS while the last three by representatives of the national malaria, HIV, and TB programs.

Day 3

On the last day, the following presentations were made:

- MISAU guidelines on how to fill in a clinical chart.
- The main issues found in medicine errors, medicine use, and prescription reports sent to the DFH.
- The main issues found in inspections of pharmaceutical services.
- How to prepare a STG.
- MISAU recommendations matrix (annex D).

The third day concluded with the presentation of a certificate of merit signed by the Mozambique Minister of Health to the Provincial Hospital of Chimoio in recognition of its DTC's efforts.

Next Steps

- Support DTCs that did not qualify to attend this workshop to improve their RMU strategy development.

- Support the DTCs that presented their strategies to continuously improve them.
- Print SOPs for medicine use studies and train all DTCs and their partners.
- Support the DFH to develop STGs for primary health care.
- Support the DFH to perform options analysis for pharmaceutical care implementation in Mozambique.
- Support the DFH to perform options analysis to address antimicrobial resistance in provincial hospitals.
- Support the DFH to build capacity at the provincial level to expand the DTCs' best practices to the district level.
- Support the DFH to strengthen the capacity of hospital pharmaceutical services to improve their efficiency.

Follow-up Actions Needed

Action	Person (s) Responsible	Estimated Completion Date	Location of Work
a. SIAPS support to DTCs at Maputo Provincial Hospital, Inhambane Hospital, and Pemba, Nampula, and Beira Central Hospitals to develop medicines use strategies.	Lucilo Williams	March 2017	Matola, Cabo, Delgado, Nampula, Sofala, and Inhambane.
b. SIAPS support to the DFH to prepare an annual plan for 2017.	Lucilo Williams	December 2016	Maputo
c. Options analysis for capacity building at the provincial level to expand DTCs' best practices to the district level.	SIAPS follow-on project	December 2016	11 provinces

ANNEX A. DRUG AND THERAPEUTICS COMMITTEE WORKSHOP AGENDA

Day 1, September 19, 2016

Schedule	Activities /Topics	Presenter
07:30-08:00	Arrival and registration of participants	
08.00-09:00	Opening ceremony	
	Introduction of participants	
	Objectives of the workshop	Head of Hospital Pharmacy Department
	USAID interventions	USAID
	Interventions of the National Directorate of Health Care	Dr. Ussene Isse
	<i>Group Photo</i>	
09:00-09:30	Presentation of the Diploma document for Drug and Therapeutics Committees	Dra. Felicidade Macamo
09:30-10:00	Presentation of the Drug and Therapeutics Committee	Dr. Hélio Gemo
10:00-10:15	<i>Break</i>	
10:15-11:00	Presentation of the interventions of the Provincial Hospital Committee of Manica to improve the use of medicines	Dr. Ambari Anastácio
11:00-11:45	Presentation of the interventions of the Hospital Geral Polana Caniço Committee to improve the use of medicines	Dra. Vitalina
11:45-12:30	Presentation of the interventions of the Provincial Hospital Committee of Zambezia to improve the use of medicines	Dr. Marcos Cerveja
12:30-13:30	Lunch	
13:30-14:15	Presentation of the interventions of the Provincial Hospital Committee of Lichinga to improve the use of medicines	Dr. Milton Agostinho
14:15-15:00	Presentation of the interventions of the Provincial Hospital Committee of Tete to improve the use of medicines	Dr. Delto Meneses
15:00-15:45	Presentation of the interventions of the Hospital Geral Jose Macamo Committee to improve the use of medicines	Dr. Narciso Cumbana
15:45-16:30	Presentation of the interventions of the Hospital Geral de Mavalane to improve the use of medicines	Dra. Abrao Lemos
16:30	End of Day 1	

Day 2, September 20, 2016

Schedule	Activities /Topics	Presenter
08:00-09:00	Completing the clinical chart	Dra. Aisha Issufo
09:00-10:00	Refresher training on the principles of clinical therapy – Treatment of anemia protocol	Dra. Alda Mariano – Clinical Therapy Professor at the Faculty of Medicine
10:00-10:15	Break	
10:15-11:15	Treatment protocol for malaria	Dr. Baltazar Candrinho
11:15-12:15	Treatment protocol for HIV and AIDS	Dra. Alene Couto
12:15-13:15	Treatment protocol for TB	Dr. Ivan Manhica
13:15-14:15	Lunch	
14:15-16:00	Treatment protocol for acute gastroenteritis	Dra. Alda Mariano – Clinical Therapy Professor at the Faculty of Medicine
16:00	End of Day 2	

Day 3, September 21, 2016

Schedule	Activities /Topics	Presenter
08:00-10:00	Refresher training on STGs for upper respiratory tract infection	Dra. Alda Mariano – Clinical Therapy Professor at the Faculty of Medicine
10:00-10:15	Break	
10:15-11:15	Presentation on Kardex databases	Dra. Ana Gadaga
11:15-12:15	Presentation on consumption databases	Dra. Natacha Mbeve
12:15-13:15	Lunch	
13:15-14:15	Presentation on prescription databases	Dra. Ana Gadaga
14:15-15:15	Presentation on problems encountered during the investigations carried out at health facilities	Dr. Martinho Djedje
15:15-16:15	Final recommendations/follow-up plan	Head of Hospital Pharmacy Department
16:15-16:45	Award (s) to hospital (s) with better performance	National Director and USAID representative
16:45-17:00	Remarks by the USAID representative	USAID
17:15	Closing	Dr. Ussene Isse

ANNEX B. FACILITATORS AND PARTICIPANTS IN THE DTC AND MEDICINE USE STUDIES SOP TRAINING

List of Facilitators

Name	Organizations
Dra. AISHA ISSUFO	MISAU
Dra. ANA GADAGA	MISAU
Dra. ALDA MARIANO	SIAPS
Dra JESSICA SELEME	MISAU
Dr. CLEMENCIO DGEDGE	MISAU
Dr. BALTAZAR CANDRINHO	MISAU
Dra. FELICIDADE MACAMO	MISAU
Dr. HÉLIO GEMO	MISAU
Dra. BENILDE	MISAU
Dr. PAULO NHADUCO	MISAU
Dra. NATACHA MBEVE	MISAU

List of Participants

Name	Organizations
HELDER LUIS NHOCUANA	LICHINGA PROVINCIAL HOSPITAL
HORACIO ANDRE LUPANHEQUE	LICHINGA PROVINCIAL HOSPITAL
LINDA KHOMBA	LICHINGA PROVINCIAL HOSPITAL
MILTON AGOSTINHO	LICHINGA PROVINCIAL HOSPITAL
NERI BAPTISTA CASPANDE	LICHINGA PROVINCIAL HOSPITAL
PAULO QUADE	LICHINGA PROVINCIAL HOSPITAL
RODALIA MAUZE	LICHINGA PROVINCIAL HOSPITAL
ALFREDO CHAUQUE	GENERAL HOSPITAL POLANA CANICO
ANA NIPITA	GENERAL HOSPITAL POLANA CANICO
FENIAS MAINGA	GENERAL HOSPITAL POLANA CANICO
GRETA MALAI	GENERAL HOSPITAL POLANA CANICO
MARIA D' FATIMA	GENERAL HOSPITAL POLANA CANICO
RABECA PAULO MAZUZE	GENERAL HOSPITAL POLANA CANICO
VITALINA VASCO	GENERAL HOSPITAL POLANA CANICO
ABRIGO FILIPE	QUELIMANE PROVINCIAL HOSPITAL
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MARCOS FERNADO CERVEJA	QUELIMANE PROVINCIAL HOSPITAL
NOE FILEMAO MASSANGO	QUELIMANE PROVINCIAL HOSPITAL
PINTO ALFREDO UAPESO	QUELIMANE PROVINCIAL HOSPITAL
RAQUEL DA COSTA LINDA	QUELIMANE PROVINCIAL HOSPITAL
SERGIO GRACIANO	QUELIMANE PROVINCIAL HOSPITAL
VIRGINIA JOSE ALBINO	QUELIMANE PROVINCIAL HOSPITAL
ANGELO PESSULO CADEADO	TETE PROVINCIAL HOSPITAL
DELTO JOSE MENESES	TETE PROVINCIAL HOSPITAL
EVARISTO RODRIGUES MASSASSE	TETE PROVINCIAL HOSPITAL
FLORENCA V.F MUSSANE	TETE PROVINCIAL HOSPITAL
JULIANA ANIBAL MALICHOCHO	TETE PROVINCIAL HOSPITAL
LISSET A. DELGADO SUAREZ	TETE PROVINCIAL HOSPITAL
MANUEL PATRICIO SUMILA	TETE PROVINCIAL HOSPITAL
MARIZILDA DE JESUS FARIA	TETE PROVINCIAL HOSPITAL

<i>Name</i>	<i>Organizations</i>
SANDRA A.C. VIGAS	TETE PROVINCIAL HOSPITAL
ANA CRISTINA	OMS
ALDA BOHANE	SIAPS
BENEDITO CHAUQUE	USAID
DAITINO SARMILI	ICAP
EUNICE DIAS	HARVARD UNIVERSITY/CHASS
FLORENCIA MOISES	SIAPS
LUCILO WILLIAMS	SIAPS
NEUSA BAY	SIAPS
OSVALDO SUEIA	SIAPS
RICARDINA MARTINS	SIAPS
SHEINIZ MOMADE	F. ARIEL GLASER
SUREIA HASSAM	GLOBAL FUND
TATIANA FONSECA	CCS
Dra. ANA CHILENGUE	MISAU
Dr. BASILIO MUIANGA	MISAU
Dra. JULIA DA SILVA	MISAU
NATERCIA MACAMO	MISAU
Dra. ROSALIA MUTEMBA	MISAU
Dr. USSENE ISSE	MISAU
JULIAN DOMINGO FABREGAS	MISAU
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HORTENCIA FRANCISCO	GENERAL HOSPITAL MAVALANE
ILDO SELEMANE DAUDO RAFIQUE	GENERAL HOSPITAL MAVALANE
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<i>Name</i>	<i>Organizations</i>
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ANASTACIA LAURA JOSE SIMANGO	CHIMOIO PROVINCIAL HOSPITAL
ARAUJO MUSSA PATRICIO	CHIMOIO PROVINCIAL HOSPITAL
BENENCIO TARZANE CAMAFUNANA	CHIMOIO PROVINCIAL HOSPITAL
EULALIA DA LEONOR J. CHIDIAO	CHIMOIO PROVINCIAL HOSPITAL
INOQUE VASCO DA GAMA	CHIMOIO PROVINCIAL HOSPITAL
KEIBY LUIS ARMANDO	CHIMOIO PROVINCIAL HOSPITAL
MARIO INOQUE	CHIMOIO PROVINCIAL HOSPITAL
MIGUEL ALBERTO NOTA ALFREDO	CHIMOIO PROVINCIAL HOSPITAL
NELINHO C. DIQUISSONE	CHIMOIO PROVINCIAL HOSPITAL
SONIA MARIA JOAO NHANICE	CHIMOIO PROVINCIAL HOSPITAL

ANNEX C. PARTICIPANT PRESENTATIONS

1. CHIMOIO PROVINCIAL HOSPITAL

Problem

In one training exercise, the DTC discovered that ferrous sulfate with folic acid was one of the most used medicines at the hospital, although it is normally prescribed only for prevention and management of anemia in pregnant women. The medicine was being systematically prescribed for children and men to treat different forms of anemia, an incorrect indication that would not improve their health status.

Intervention

The DTC prepared a document regulating the use of the medicine at the hospital, trained prescribers on how to treat anemia, and closely monitored the prescription and use of ferrous sulfate with folic acid.

Results

After three months, use of the medication was reduced by 10%.

2. POLANA CANIÇO GENERAL HOSPITAL

Problem

The DTC identified insufficient levels of compliance with prescription indicators according to the national prescription guidelines as the main problem.

Intervention

The DTC decided to display the prescription guidelines in all hospital departments and to distribute the list of hospital medicines to all departments. A sub-committee on antibiotic resistance was also created.

Results

After one month, the completeness of relevant information in prescriptions improved from an average of 10% to 27%.

3. QUELIMANE PROVINCIAL HOSPITAL

Problem

The DTC identified insufficient levels of compliance with prescription indicators according to the national prescription guidelines as the main problem.

Intervention

The DTC decided to provide: on-the-job training for hospital health technicians working in the emergency service to manage the most frequent diseases; implement supportive supervision in the pharmacies and wards; reinforce compliance with the TOR for pharmacy staff; and to design and implement a communications procedure among pharmacists, nurses, and prescribers.

Results

After one month of implementation, the percentage of consultations with one antibiotic prescribed increased from 67% to 100%. An investigation of the reason for this result revealed that the increase was due to the presence of new prescribers in the emergency unit. The new staff were trained and in the third month of implementation, a reduction to 48% was verified.

4. LICHINGA PROVINCIAL HOSPITAL

Problem

The DTC was concerned about poor compliance with national documentation standards concerning the completion of clinical charts.

Intervention

The DTC conducted: on-the-job training on the clinical chart documentation guidelines; monitored clinical chart documentation (correct transcription of clinical therapy from the clinical register to the therapy sheet, compliance with STGs); and organized a discussion of the main problems identified.

Results

Between May and July 2016, the correct transcription of the clinical therapy from the clinical register to the therapy sheet improved from 34.25% to 49.07%. Compliance with STGs improved from 25.92% to 45.37%.

5. TETE PROVINCIAL HOSPITAL

Problem

The DTC identified insufficient levels of compliance with prescription indicators according to the national prescription guidelines as the main problem.

Intervention

Interventions consisted of: displaying prescription indicators that are regularly monitored; discussion of indicator status at the monthly DTC meeting; and morning sessions advocating the prescription of medicines on the Hospital's medicines list.

Results

After two months of implementation, worsening performance was observed: the percentage of medicines prescribed that were actually dispensed declined from 87% in May to 76% in July; and the percentage of encounters during which an antibiotic was prescribed increased from 54% in May to 75% in July. In analyzing these results, the DTC concluded that administrative measures are less likely to lead to an improvement, as compared to educational, regulatory, and managerial interventions, which should be used henceforth in combination.

6. JOSE MACAMO GENERAL HOSPITAL

Problem

The DTC identified insufficient levels of compliance with prescription indicators according to the national prescription guidelines as the main problem.

Intervention

The DTC: presented on the status of prescription indicators during regular clinical sessions; made prescribers aware of the importance of complying with good prescription practices; issued a hospital policy on prescription quality and dispensing; and the pharmacy in the emergency unit started to return non-compliant prescriptions.

Results

The completeness of relevant information on prescriptions improved from an average of 51% to 72%.

7. MAVALANE GENERAL HOSPITAL

Problem

The DTC identified insufficient levels of compliance with prescription indicators according to the national prescription guidelines as the main problem.

Intervention

Interventions consisted of: giving feedback to prescribers on deviations in their prescriptions from the standards; promotion of adherence to the STGs; and discussion of problems during clinical sessions.

Results

The completeness of relevant information in prescriptions improved from an average of 18% to 20% after two months of interventions.

ANNEX D. MISAU RECOMMENDATIONS MATRIX

DTC Diploma Presentation			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	All members of the Committee should be appointed.	Clinical Director	October 31
2	Members must have their names published in the Government Gazette.	Clinical Director	December 31
3	Verify with the MISAU legal adviser how to proceed when some members do not have definitive nomination as civil servants.	Hospital Pharmacy Department	Immediate
4	All members must sign the conflict of interest form.	Clinical Director	October 31
5	Among the other Diploma duties, the Committee shall consider the five priority assignments (level of attention, requisition/ordering medicines, prescription, treatment protocols, and adverse drug reaction notification).	Clinical Director and Secretary of the Committee	December 31
6	Meetings can be held with 50% of members in attendance.	Clinical Director	Ongoing
7	Meetings should be scheduled 15 days in advance.	Clinical Director and Secretary of the Committee	Ongoing
8	Reports must be prepared according to the guidelines and sent quarterly.	Clinical Director	Ongoing
9	Must ensure the confidentiality of matters.	Clinical Director	Ongoing

Status of DTC			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Prepare an integration plan for pharmacy professionals and prescribers.	Clinical Director	Ongoing
2	Educate prescribers and pharmacy professionals from the health units on the national treatment protocols for HIV, TB, and malaria.	Clinical Director and focal points of the programs	November 30
3	Improve the level of attention of the Health Unit.	All professionals of the Health Unit	October 31
4	Standardize medicines by departments / services.	Head of Departments/Services and Head of Pharmaceutical Services	October 31
5	Improve the requests coming from departments / services.	Head of Departments/Services, Head of Pharmaceutical Services and medical store head	November 30
6	Discuss the request at the hospital with the DTC.	Clinical Director	Ongoing
7	Improve communication between prescribers and pharmacy professionals.	Clinical Director	November 30
8	Allocate pharmacy professionals to the wards.	National Directorate of Health Care / Hospital Pharmacy Department	Ongoing
9	Coordinate with the Pharmaceutical Department (National Laboratory for Quality Control of Mozambique) and Center for Drugs and Medical Supplies to prevent medicines from being distributed before they have their certificate of analysis.	Hospital Pharmacy Department	Permanent
10	The Department of Hospital Pharmacy, in coordination with the	National Director-	December 31

	Center for Drugs and Medical Supplies and the Pharmaceutical Department, should propose a revision of the auscultation kits for the provinces.	ate of Health Care / Hospital Pharmacy Department	
11	The Department of Hospital Pharmacy should publicize existing treatment protocols in coordination with the clinical programs.	Hospital Pharmacy Department	October 31

Presentation of the intervention of Polana Canico General Hospital Committee to improve the use of medicines			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Implement administrative and educational measures to improve prescriptions (prescription and Kardex databases).	Clinical Director	November 30
Presentation of the intervention of Lichinga Provincial Hospital Committee to improve the use of medicines			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Deadlines for implementation of activities in the action plan of the Committee should be divided into short, medium, and long term.	Clinical Director and members of the Committee	November 30
Presentation of the intervention of the Tete Provincial Hospital Committee to improve the use of medicines			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	The Committee should investigate the causes of overuse of antibiotics.	Clinical Director and members of the Committee	October 30
Presentation of the intervention of the Geral José Macamo Hospital Committee to improve the use of medicines			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Implement administrative and educational measures to improve prescriptions (prescription and Kardex databases).	Clinical Director	November 30
Presentation of the intervention of the Mavalane General Hospital Committee to improve the use of medicines			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Pharmacy professionals cannot dispense medicines if the prescription does not contain the prescriber's signature.	Head of public pharmacy	Ongoing
General Recommendations			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Monitor the percentage of prescriptions in legible handwriting.	Heads of Pharmaceutical Services	December 31
2	Prepare a monitoring plan for other critical indicators, other than those submitted by them.	All Committees	December 31
3	Review the agenda for the next meeting of the Committee, taking into account the critical problems of the health unit and the 5 priority assignments.	Clinical Director and Secretary of the Committee	Immediate
5	Following Committee meetings, recommendations with deadlines and responsibilities should be prepared.	Secretary of the Committee	Ongoing
6	Provincial Health Directorates should exchange information regarding medicines overstocked in provincial medical stores.	Hospital Pharmacy Department	Ongoing
7	DTCs should advise the chief medical officer on the list of medicines to order from the central medical stores on a quarterly basis.	Drug Therapeutic Committee	Ongoing
8	Ensure the integration of foreign doctors in health facilities.	Drug Therapeutic Committee	Ongoing
9	Prepare a plan for replication of training, including a monitoring plan.	Clinical Directors	Ongoing

Annex D. MISAU Recommendations Matrix

10	Ensure that in the absence of protocols, copies of treatment regimens should be available in the departments / services (wards, advice bureaus, aid bank, pharmacies).	Clinical Director and Head of Pharmaceutical Services	October 30
11	Treatment regimens should not be changed without previous discussion with the DTCs.	Clinical Director, Head of Departments and Services, and Head of Pharmaceutical Services	Ongoing
Completing the clinical chart			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Duly complete the clinical chart.	Clinical Director and Head of Departments/ Services	Ongoing
2	Ensure that daily bed side rounds occur.	Clinical Director and Head of Departments/ Services	Ongoing
3	The transcription of medication from the clinical chart to the therapy sheet is the responsibility of the clinician.	Clinical Director	Ongoing
4	Do not prepare the prescription in advance because all patients do not have the same adverse drug reactions.	Clinical Director and Head of Departments	Ongoing
5	The patient discharge form should clear state the ambulatory treatment.	Clinical Director, department heads and heads of Pharmaceutical Services	Ongoing
6	The hospital orientation program for medical doctors should also address how to complete the clinical chart.	Hospital Management Department	Ongoing
7	The clinical chart should not have correction marks.	Clinical Director and Head of Department	Ongoing
8	Analyze and duly complete the transference form.	Clinical Director and Head of Department	Ongoing
9	Obtain the patient's consent for any intervention to be carried out.	Clinical Director and Head of Department	Ongoing
10	Elaborate patients' transference criteria.	Hospital Management Department	November 30
11	Allocate scales to the wards of health facilities.	DNAM / Logistics and Supplies Department	December 31
Presentation of Kardex Database			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Medication errors identified by pharmacists should be discussed with medical doctors.	Clinical Director and Head of Pharmaceutical Services	Ongoing
Presentation of Consumption Database			
# order	Action	Person (s) Responsible	Estimated Completion Date
1	Perform Pareto analysis based on data provided on services medicines order.	Clinical Director, Heads of Departments/Services, Head of Pharmaceutical Services and Head of medicine storage	October 31
2	Examine whether existing medicines in the Health Unit are really needed (taking into account whether they are vital,	Clinical Director, Heads of Depart-	October 31

	essential, and non-essential) and prescription levels.	ments/Services, Head of Pharmaceutical Services and Head of medicine storage	
3	Check whether antibiotics are being prescribed, taking into account the level of the health facility, category of prescribers, pathologies, increase in cases of infections, whether prescribers were trained on the national treatment protocols and the National Medicines Formulary, and protocols in the departments / services.	Clinical Director and Head of Pharmaceutical Services	October 31
4	Compare the use of antibiotics in cases of infection reported in coordination with the Head of the Infection Control Program (PCI)	Clinical Director, Head of Pharmaceutical Services and PCI responsible	October 31
5	Check that the cases of admission for hypertension and anemia in the Health Unit justify the use of anti-hypertensive and anti-anemic medications.	Clinical Director and Head of Pharmaceutical Services	October 31
6	Return the overstocked drugs to Provincial Medical Store.	Head of Pharmaceutical Services	Ongoing
7	Visit the Health Units medical stores.	Clinical Directors and Heads of Departments/Services	Ongoing
8	Prepare a circular for participation in clinical visits by pharmacy professionals assigned to the ward and in the absence of the Head of Pharmaceutical Services.	Hospital Pharmacy Department	Immediate

ANNEX E. SIAPS PRESENTATIONS



Princípios de Terapêutica Racional

- Uma das maiores preocupações actuais em todo mundo é melhorar o acesso das populações a cuidados de saúde de qualidade
- A qualidade dos cuidados de saúde depende em parte da disponibilidade de medicamentos eficazes, seguros, de qualidade e baixo custo no SNS
- O MISAU fez um esforço para melhorar a disponibilidade de medicamentos no SNS e seleccionou um número limitado que se encontram na LNME



Princípios de Terapêutica Racional

- O Uso Racional dos Medicamentos (URM) é um pilar fundamental para que as populações tenham acesso a cuidados de saúde de qualidade
- Uma das principais actividades dos CHTF é a promoção do URM
- Nas sessões que se seguem mais do que sessões clássicas sobre terapêutica, pretende-se que os membros dos CHTF sejam estimulados a promover e contribuir para o URM



Princípios de Terapêutica Racional

- Como os CHTF poderão contribuir para o URM?
 - ✓ Colaborando com o MISAU na elaboração de protocolos ou normas de tratamento de algumas condições como: **anemia, gastroenterite aguda e infecções das vias respiratórias superiores**
 - ✓ Como foram escolhidas estas condições?
- Visitas de supervisão mostraram que há uma disparidade no tratamento de várias condições pelos diferentes clínicos



Princípios de Terapêutica Racional

- Embora não sejam as condições com maior peso sobre o sector saúde, elas surgem na prática clínica diária e exigem um manejo adequado das mesmas
- O manejo adequado, depende em parte dos conhecimentos do clínico mas também das condições existentes nas unidades sanitárias
- Melhorar o manejo destas condições implica o envolvimento dos CHTF na elaboração de protocolos ou normas de tratamento



Princípios de Terapêutica Racional

- Trabalho de grupo
- Resolução de casos clínicos usando os princípios de terapêutica racional
 - ✓ Definição do problema do doente
 - ✓ Definir o objectivo terapêutico
 - ✓ Inventário dos possíveis tratamentos
 - ✓ Escolha do tratamento para o doente
 - ✓ Iniciar o tratamento (cardex, prescrição)
 - ✓ Dar informação e instruções ao doente
 - ✓ Monitorização dos resultados



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Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Alde Mariano

Maputo, Setembro 2016



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Introdução

- Moçambique possui vários guias/protocolos de tratamento elaborados pelo Ministério da Saúde
- A maioria destes protocolos está virada para as grandes endemias
 - ✓ as que causam maior impacto ou têm maior peso sobre a saúde da população: Malária, HIV, Tuberculose
 - ✓ patologias de elevada mortalidade em crianças



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- Os profissionais de saúde são confrontados com condições para as quais não existe uma recomendação específica para o seu manejo
- Isto leva a prescrição de medicamentos de acordo com:
 - ✓ Experiência do profissional
 - ✓ Local de formação (várias escolas no país, incluindo os treinados no exterior)
 - ✓ Copiando o que fazem os professores/colegas mais velhos



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- Os profissionais não se questionam sobre a existência de evidências de eficácia e segurança dos medicamentos nas indicações para os quais são prescritos
- Alguns profissionais podem ver os protocolos terapêuticos como uma limitação da sua liberdade de prescrição e decisão sobre os doentes



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- Os protocolos não são apanágio dos países pobres ou emergentes
- Muitos países desenvolvidos, onde os recursos não são tão limitados como o nosso, elaboram protocolos ou normas terapêuticas para várias patologias
 - ✓ O objectivo é educar e apoiar os profissionais nas suas decisões terapêuticas e com isso melhorar os cuidados dos pacientes



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- Os protocolos terapêuticos se elaborados:
 - ✓ Envolvendo profissionais de diferentes áreas
 - ✓ Usando a melhor evidência científica disponível
 - ✓ Usando a experiência dos profissionais no terreno
 - ✓ Discutidos e divulgados amplamente entre os profissionais



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- Previnem o uso irracional de medicamentos e suas consequências:
 - ✓ resistências aos antibióticos
 - ✓ reacções adversas aos medicamentos
 - ✓ intoxicações medicamentosas
 - ✓ agravamento das condições para os quais foram prescritos
 - ✓ desperdício de recursos



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- O mais importante é o compromisso como profissionais de saúde de melhorar a saúde das pessoas que necessitam dos nossos cuidados
- Usando alternativas terapêuticas seguras e eficazes cujos benefícios e custos sejam equilibrados e não prejudiquem a justiça e a igualdade de acesso a elas



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- Os protocolos terapêuticos
 - ✓ Tornam a assistência clínica e farmacêutica eficaz e de qualidade
 - ✓ Ajudam os gestores de saúde na tomada de decisão quanto à aquisição e dispensa de medicamentos
 - ✓ Cumprem um papel fundamental na educação contínua dos profissionais



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- O CHTF deverá identificar as situações para as quais é necessário elaborar protocolos ou normas de tratamento
- Advocacia junto da direcção da unidade sanitária, clínicos e profissionais de farmácia para a necessidade de elaboração de protocolos para as situações identificadas



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- O CHTF mobiliza clínicos e profissionais de farmácia para a elaboração do protocolo
- Procura de informação sobre evidências disponíveis relativas ao tratamento das condições identificadas.
- Elaboração do rascunho do protocolo
- Discussão nas reuniões do CHTF e sessões clínicas de modo a obter subsídios para a melhoria e apropriação do protocolo pelos profissionais



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

- Apresentamos algumas informações básicas a serem incluídas no protocolo terapêutico
- Os CHTF poderão usar na elaboração de protocolos se assim o desejarem mas pode e deve ser modificada de acordo com as necessidades e condições locais



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Introdução

- Conceitos da situação clínica a tratar:
- ✓ Definição, possíveis complicações
- ✓ Morbimortalidade e peso da doença
- ✓ Dados epidemiológicos da doença em Moçambique



Diagnóstico

- Critérios de diagnóstico: clínico, dados laboratoriais ou de imagem
- Muitas vezes o laboratório ou outros exames complementares não estão disponíveis
- ✓ Nestes casos o protocolo o deverá indicar claramente como proceder para chegar ao diagnóstico clínico



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Critérios de inclusão

- Critérios dos pacientes para serem incluídos no protocolo de tratamento
- Os critérios: apenas clínicos ou incluir exames laboratoriais e de imagem.
- Definir claramente a situação clínica na qual o benefício do tratamento é superior ao risco



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Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Critérios de exclusão

- Critérios que impedem o paciente de fazer o tratamento (contra-indicações, evidência de risco para o paciente)
- ✓ Antecedentes de RAM (convulsões, angiedema, anafilaxia, etc)
- ✓ Insuficiência renal ou hepática grave



Casos especiais

- Situações da doença ou Tto em que a relação risco/benefício deve ser avaliada pelo clínico
- CHTF poderá ser consultado para decisão final de tratar (idosos, crianças, grávidas, contra-indicações relativas)
- Situações que não foram contempladas, mas necessitam Tto



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Local de referência

- Locais para onde deverão ser referidos os pacientes
 - ✓ Protege os doentes
 - ✓ Facilita o acesso a assistência sanitária
- A referência deve ser feita:
 - ✓ De acordo com a hierquização do SNS
 - ✓ Tendo os cuidados que o doente deverá receber
 - ✓ Tendo as condições existentes no local para avaliação, Tto e acompanhamento

Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Tratamento

- Opções de tratamento para a doença:
 - ✓ Gravidade, existência ou não de complicações ou outras co-morbilidades, idade do paciente, etc
 - ✓ Ttos não farmacológicos (mudanças de hábitos, dieta, exercícios físicos, psicoterapia, etc)



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Esquema de administração

- Doses recomendadas (incluindo mínima e máxima), as vias de administração e os cuidados especiais

Duração do Tto – Critérios para interrupção

- Duração do Tto e os critérios para sua interrupção
 - ✓ Esses critérios têm em vista à proteção dos pacientes



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

O tratamento pode ser apresentado de forma dividida:

Medicamentos

- ✓ Indicar os medicamentos pelo nome genérico ou DCI, as apresentações disponíveis em ordem crescente das linhas de tratamento



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Tratamento

- Opções de tratamento para a doença:
 - ✓ Gravidade, existência ou não de complicações ou outras co-morbilidades, idade do paciente, etc
 - ✓ Ttos não farmacológicos (mudanças de hábitos, dieta, exercícios físicos, psicoterapia, etc)

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Duração do Tto – Critérios para interrupção

- Duração do Tto e os critérios para sua interrupção
- ✓ Esses critérios têm em vista a proteção dos pacientes



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Monitorização

- Quando e como monitorar a resposta terapêutica ou a toxicidade do medicamento
- Descrever os efeitos adversos usados para orientar uma mudança da terapia



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Referências bibliográficas

- Inserir no final do documento, segundo a ordem de aparecimento no texto

Outras

- ✓ Índice
- ✓ Prefácio
- ✓ Agradecimentos (profissionais e financiadores se houver)



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Benefícios esperados

- Resultados esperados com o Tto



Informação Básica a Incluir no Protocolo ou Normas de Tratamento

Acompanhamento após o tratamento

- Conduta após o paciente terminar o Tto
- Onde e quando devem ser avaliados após a alta
- Nos doentes crónicos, indicar quando e como os pacientes devem ser reavaliados



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