



# Supporting drug and therapeutics committees in Sierra Leone to promote safe, appropriate medicine use



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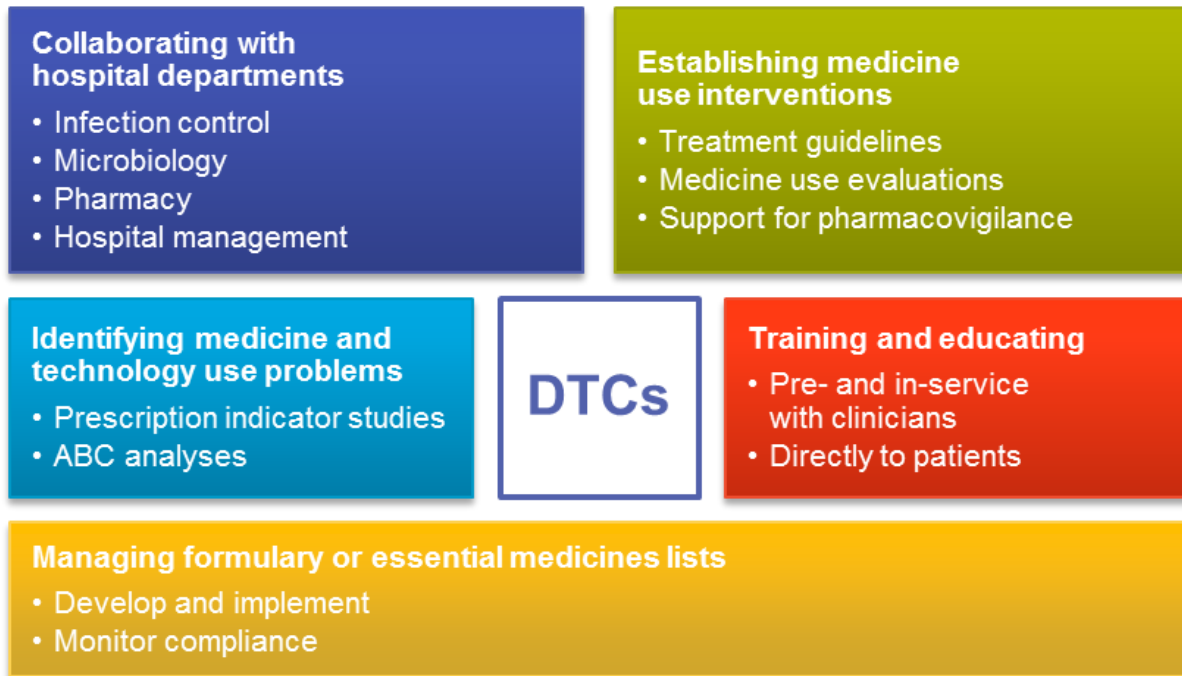
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Irrational medicine use and poor pharmaceutical management at all levels are widespread problems in many developing countries, including Sierra Leone. Misuse, underuse, and overuse of medicines; weak systems that compromise medicine safety; the waste of scarce resources due to expiry; and the rise of antimicrobial resistance (AMR) are particularly worrying because they directly affect health outcomes. Because of a lack of sound data for decision making, health workers may need to select products for medicines lists, supply, and prescribing based on observation and preferences.

As part of its technical assistance in post-Ebola recovery work to help Sierra Leone strengthen its pharmaceutical system, SIAPS is facilitating the selection of appropriate, safe products to be procured and used at different levels of the public health system. Promoting rational medicine use cuts down on waste, improves health outcomes, and helps prevent the spread of AMR.

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Drugs and therapeutics committees (DTCs) are a proven way to strengthen health systems and reduce practices that lead to morbidity and antimicrobial resistance.



Graphics adapted from Drug and Therapeutics Committees: A Practical Guide<sup>i</sup>

## STRATEGIC APPROACH

Drugs and therapeutics committees (DTCs) are a proven way to strengthen health systems and reduce practices that lead to morbidity and AMR by stemming inappropriate medicine use and promoting sound management among health care professionals. A DTC provides a forum for improving health care delivery through participation and evidence-based practice reviews. This group manages medicine selection and procurement, promotes good prescribing and dispensing practices, and implements strategies to improve medicine use throughout a health care facility. DTCs also make necessary decisions on a health facility's reported adverse drug reactions and provide an environment conducive to continuing education. SIAPS and the Directorate of Drugs and Medical Supplies (DDMS) supported the creation of hospital DTCs in Sierra Leone.

## IMPLEMENTATION

Although there were attempts to establish DTCs in selected hospitals in Sierra Leone before SIAPS, they were short lived due to a lack of strategic planning. To help establish a framework for implementation, SIAPS supported a series of stakeholder engagement, foundational, training, and rapid review activities.

### Building capacity

In November 2016, SIAPS provided short-term technical assistance from its technical expert in Ethiopia, who spent two weeks with the SIAPS/Sierra Leone and DDMS teams to share experiences from the successful establishment and implementation of DTCs in Ethiopia. In November 2016, SIAPS, in collaboration with the DDMS, conducted a rapid baseline assessment on tracer medicines in four hospitals, used the findings of the assessment to conduct a DTC familiarization and establishment workshop, and drafted terms of reference for establishing and operationalizing DTCs.

This fast track approach enabled four hospitals—Connaught Tertiary, Ola During Children’s, Makeni Government, and Princes Christian Maternity—to begin establishing DTCs. These hospitals held orientation meetings, selected DTC members, and launched the DTCs in March 2017. SIAPS provided the four hospitals with computers, printers, projectors, stationery, and office furniture. Subsequent workshops were held with other district hospitals, and six (Magburuka/Tonkolili, Kabala/Koinadugu, Kono, Kenema, Kailahun, and Bo) are on track to establish DTCs in the last quarter of 2017.



Dr. Saad El-Din Hussein Hassan, Health Advisor for USAID/Sierra Leone, hands over equipment provided by USAID/SIAPS (with itemized donations seen in the bottom photo) to the directors of hospitals and laboratory services of the Ministry of Health and Sanitation. Photo: Cherie Black

To promote sustainability and institutionalization, a new organogram for the DDMS includes a rational medicine use unit responsible for DTC matters. This new DTC subunit received technical assistance from SIAPS in Sierra Leone to work with hospital pharmacists who attended a [Leadership Development Program \(LDP\)](#) training in May 2017.<sup>ii</sup> The LDP, developed more than a decade ago by Management Sciences for Health, is a structured program that fosters personal development in handling real-life challenges using a team-based, action-oriented learning approach. The training was customized to support the role of DTCs in improving patient care through rational medicine use and improved access to medicines. SIAPS also conducted a DTC brainstorming and harmonization session for all represented hospitals and DDMSs during the LDP training to discuss expectations, progress, challenges, and next steps.

### Guiding and monitoring progress

In July 2017, a DTC Progress Workshop was conducted in Freetown for hospital pharmacists; hospital medical superintendents; district pharmacists; and representatives from the DDMS, the Pharmacy Board of Sierra Leone (PBSL), and the SIAPS team in Sierra Leone. SIAPS co-facilitated the workshop with the DDMS’s Department of Rational Medicine Use. The agenda included a discussion on the role that DTCs play in pharmacovigilance and the introduction of a DTC operational manual, individual DTC work updates, and action plans.

The Deputy Director of the DDMS opened the workshop by highlighting the importance of DTCs in promoting rational medicine use and medicine safety and in improving pharmaceutical supply management.

The head of the Department of Rational Medicine Use also briefly introduced the concept of pharmacovigilance and explained the process by which DTCs should identify, assess, and report



adverse drug events to the PBSL. The PBSL will perform causality studies as needed and report results to the Uppsala Monitoring Center, which collects worldwide adverse drug event data for further studies on adverse reactions.

During the session, DTCs provided updates on project results. Each group reported on meetings conducted, number of members, status of establishing terms of references, ongoing or completed activities, and challenges that the hospitals face and DTC efforts to address them.

Ola During Children's Hospital launched its DTC in August 2017 in the presence of representatives from key hospital departments, the DDMS, and SIAPS.



Dr. Nellie Bell, a pediatric consultant representing the hospital medical superintendent, chairs the first orientation and launch meeting of Ola During Hospital DTC in August 2017. Photo: Gabriel Daniel

## RESULTS

### **New prescriptions format enhances data gathering and security**

The lack of standardized, preprinted prescription templates is a major challenge to many health facilities in Sierra Leone, hampering efficiency and effective data gathering. Prescriptions are critical official documents of the health system and require secure storage. They provide data that can be analyzed to yield key patient and product-related information, as well as prescribing and dispensing data for rational medicine use initiatives. In consultation with the DDMS, the DTCs have taken the initiative to revise and use the standardized prescription template. Six hospitals have introduced new prescription forms to guide drug-use information gathering, including rational use.

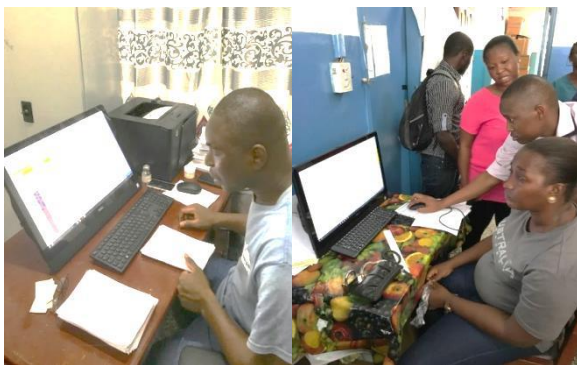
Connaught Tertiary Hospital in Freetown has succeeded in revising and implementing the hospital treatment chart as part of its DTC functions. The adoption of the improved treatment chart will harmonize patient recording and will be used as a data source for the pharmacy/treatment register.

### **Electronic treatment register helps supply data for decision making**

A significant addition to DTC operations was the development of and orientation to an electronic treatment register (eTR). The eTR was developed to capture prescription information on patients (age, gender, pregnancy, lactation status, and total number); diagnosis (condition, number of diagnoses per prescription, malaria test status); and treatment (number of medicines per prescription, number of antibiotics and injectable medicines per prescription, and dispensing fulfillment). Its capabilities include aggregating, summarizing, and printing relevant data.

A SIAPS staff member was embedded in the DDMS in June and early July to provide technical assistance to the newly established DTCs and to orient and

train participants from nine hospitals on the revised eTR and on adverse drug event reporting. The four DTC pioneer hospitals have used the SIAPS-donated computers to pilot eTRs. They captured data from either in-patient treatment charts or out-patient prescriptions for January and February 2017. SIAPS analyzed the pilot data and worked with the DDMS to further refine the eTR and to introduce data analysis formulas into the tool. The four pilot hospitals have fully implemented the system; ideally, each hospital instituting a DTC will use it.



Data clerks, hospital pharmacists, and representatives from the DDMS and SIAPS enter data and discuss eTR operations at Ola During and PCMH hospitals in August 2017. Photo: Gabriel Daniel

**Initial rapid reviews provide baseline for measuring rational medicine use**

In November 2016 and again in August 2017, SIAPS supported the first four DTCs in conducting a rapid review of prescriptions for informing the status of selected rational medicine use indicators. Regular DTC reviews help identify areas of needed improvement in rational medicine use, which the committees can address through prescriber, dispenser, and patient partnerships. The first two reviews measured antibiotic prescribing, injectable medicine use, brand versus generic medicines, number of medicines prescribed per encounter, and average rate of prescription forms that include all required information.

**Table 1. Rapid Review Results from Connaught, Makeni, Ola During Children’s, and Princes Christian Maternity Hospitals**

Indicator	Value
Rate of prescription form completion	49%
Average number of medicines prescribed per encounter	3.7
% of prescriptions for antibiotics	66%
% of prescriptions for injectable medicines	25%
% of prescriptions for brand name products	47%

**An in-hospital pharmacy improves access to affordable, quality products**

Hospital DTCs can become a focal point for planning for other areas of hospital improvement. Makeni Government Hospital financed and established a cost recovery unit within its pharmacy department. Patients who fall outside the mandate of the government’s free health care initiative, which offers medicines and related supplies to pregnant women and children under the age of five, did not have access to medicines at the hospital’s pharmacy. Instead, they filled their prescriptions at private pharmacies, where they faced a greater risk of problems with availability,

quality, and affordability. Having a cost recovery pharmacy within the hospital not only helps ensure patient access to essential medicines, but also helps guarantee that the medicines are safe, effective, and dispensed accurately, completing the cycle of quality services, treatment, and case management. The income generated from the sale of medicines can also help the hospital to further improve patient services.



Pharmacist Tamba M.D. Saquee explains how Makeni Government Hospital's DTC supported the establishment of a cost recovery pharmacy at the hospital. Photo: Gabriel Daniel

## NEXT STEPS

The newly established DTCs created action plans during the May 2017 LDP training. Depending on each hospital's progress to date, plans included finalizing terms of reference, implementing revised prescription forms, or developing a hospital medicines list. Each plan included a time line for completion. The SIAPS country project director encouraged participants to continue mobilizing hospital budgets for DTC work.

The DDMS and SIAPS also introduced a draft DTC operational manual, which will be used for day-to-day DTC management. The manual outlines steps for establishing or revitalizing a hospital DTC; managing DTC meetings, including preparation, agenda, conducting, and writing meeting minutes; and establishing action points. The manual also explains the technical functions of a hospital DTC and provides operational templates and examples. Meeting leaders discussed the manual's key content and objectives and asked participants to review it and provide questions or comments. SIAPS also assisted the DDMS in developing a template for its own DTC update and action plan and a follow-up checklist for monitoring the DTCs' progress.

SIAPS has been working through the newly established DTCs to advocate for progress with the government's AMR plan, which is in progress, and is supporting the DDMS and PBSL in the review and revision of a national medicines list. This includes creating the selection committee that will work with the DDMS and PBSL in the medicines selection process.

Following the first baseline rapid review of prescriptions in November 2016, a second progress review was conducted in August 2017, and a comparative report will be prepared to inform progress and identify gaps that need to be addressed.



## FURTHER READING

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<sup>i</sup> The World Health Organization. 2003. Drug and Therapeutics Committees: A Practical Guide. Geneva: The World Health Organization.

<sup>ii</sup> Technical Highlight: Leadership Development Training to Strengthen Pharmaceutical Management in Sierra Leone. 2017. Arlington, VA: Systems for Improved Access to Pharmaceutical Products and Services.

**ABOUT SIAPS** | The Systems for Improved Access to Pharmaceuticals and Services (SIAPS) program works to assure access to quality pharmaceutical products and effective pharmaceutical services through systems-strengthening approaches to achieve positive and lasting health outcomes. SIAPS is funded by the US Agency for International Development (USAID) and is implemented by Management Sciences for Health.

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