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GUIDLINE FOR HOSPITAL DEVELOPMENT

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ABSTRACT

Tanzanian hospitals suffer from underfunding and poor management. In particular, planning and strategic thinking need improvement. Cultural values such as subordination, risk aversion, and high time preference, together with a long history of socialist government, result in lack of responsibility, accountability, and planning. This has been addressed by the health sector reform with its focus on decentralization, strengthened by the introduction of basket funding facilitated by the Comprehensive Council Health Plans. As a consequence of this the next logical step is to improve the authority of regional and district hospitals in the use of their resources by introducing hospital development plans. These strategic plans were introduced as tools of strategic planning in 2001 by the Kreditanstalt für Wiederaufbau in close collaboration with the Tanzanian Ministry of Health, binding the release of rehabilitation funds to presentation of a strategic hospital plan. This study examines the rationale and content of hospital development plans. Initial experiences are discussed .The quality of presented plans has steadily improved, but there is a tendency for hospitals with a close connection to development partners to present well prepared reports while other hospitals have severe problems fulfilling the requirements. For many hospitals it is in fact the first time that they have had to define their functions and future role, thus breaking ground for strategic thinking. Hospitals which utilize most of the health budget play a very important role in the country's health system. Hospital Administration can not be done on intuition. A hospital administrator must be well aware of the scientifi c methods to run and evaluate the hospital functions and services in an objective fashion. All the doctors should be having a good understanding of hospital organization and management for better care of their patients.

Moreover they should also have enough knowledge for management of human, material and fi nancial resources in a cost effective way with optimum time approach. Hospitals are among the most complex organizations in modern society. The modern hospital itself is a universe, with a variety of objectives, and a scalar division of labor to achieve those objectives.

➢ INTRODUCTION

India's Public Health System has been developed over the years as a 3-tier system, namely primary, secondary and tertiary level of health care. District Health System is the fundamental basis for implementing various health policies, delivery of healthcare and management of health services for defined geographic area. District hospital is an essential component of the district health system and functions as a secondary level of health care which provides curative, preventive and promotive healthcare services to the people in the district.

Community Health Centres, Primary Health Centres and Sub-centres.However, at present there are 605 district hospitals in 640 districts of the country as per NRHM data as on 30-6-2010. The Government of India is strongly committed to strengthen the health sector for improving the health status of the population. A number of steps have been taken to that effect in the post independence era.Various specialists like surgeon,physician, obstetrician and gynaecologist, paediatrician, orthopaedic surgeon, ophthalmologist, anaesthetist, ENT (ear, nose, throat) specialist and dentist have been placed in the district headquarter hospital.

- **Hospital infection control Team (HICT) and Hospital infection control committee**

1. Guidelines for prevention & control of infections
2. Antimicrobial policy
3. Surveillance policy
4. Disinfection policy
5. Isolation policy
6. Policy for investigation of an outbreak of infection

The overall aim of this document is to provide evidence based information in the prevention and control of infection. It is relevant to all staff including doctors, nurses, other clinical professionals and managers working in the hospital. This document will be updated as and when required.

Some projects may be subject to the regulations of several different programs, including those of state, local, and federal authorities. While every effort has been made for coordination, individual project requirements should be verified, as appropriate. Should requirements be conflicting or contradictory, the authority having primary responsibility for resolution should be consulted.

The functional program shall include a description of those services necessary for the complete operation of the facility. The program shall address the size and function of each space and any special design features. Include the projected occupant load, numbers of staff, patients, residents, visitors. In treatment areas, describe the types and projected numbers of procedures. Describe the circulation patterns for staff, patients or residents, and the public. Describe also the circulation patterns for equipment and clean and soiled materials. Address equipment requirements; describe building service equipment and fixed and movable equipment.

- **Hospital**

A hospital is a health care institution providing patient treatment with specialized medical and nursing staff and medical equipment

Fig. 1: Hospital.

The best-known type of hospital is the general hospital, which typically has an emergency department to treat urgent health problems ranging from fire and accident victims to a sudden illness district hospital typically is the major health care facility in its region.

With many beds for intensive care and additional beds for patients who need long-term care. Specialized hospitals include trauma centers, rehabilitation hospitals, children's hospitals, seniors' (geriatric) hospitals, and hospitals for dealing with specific medical needs such as psychiatric treatment (see psychiatric hospital) and certain disease categories. Specialized hospitals can help reduce health care costs compared to general hospitals.

Hospitals are classified as general, specialty, or government depending on the sources of income received.A teaching hospital combines assistance to people with teaching to medical students and nurses. A medical facility smaller than a hospital is generally called a clinic. Hospitals have a range of departments and specialist units such as cardiology. Some hospitals have outpatient departments and some have chronic treatment units. Common support units include a pharmacy, pathology, and radiology.

Hospitals are usually funded by public funding, health organisations (for profit or nonprofit), health insurance companies, or charities, including direct charitable donations. Historically, hospitals were often founded and funded by religious orders, or by charitable individuals and leaders.

- **Types of hospitals**

In the INDIA you can differentiate hospitals based on a variety of factors that includes functionality, size, location, ownership and specialization. Here they are in more detail:

1. Functionality

Functionality refers to whether the hospitals are general-purpose, teaching hospitals, acute care facilities, long-term hospitals, community hospitals, research hospitals or if they provide trauma care for patients. It refers to how the hospitals themselves function within the communities they serve.

2. Size

There are three primary classifications when it comes to size

A. Small hospitals: Fewer than 100 beds.

B. Medium hospitals: 100 to 499 beds.

C. Large hospitals: 500 or more beds.

Typically, these sizes are classified by the number of beds they have although there can be some variation within these groups of hospitals and medical centers.

3. Location

You can also classify hospitals by their locations. Rural hospitals aid smaller communities and often have limited access to advanced equipment or specialized procedures and techniques. Since they also face competition, urban hospitals serve larger metropolitan areas and must often offer a wide degree of versatility when it comes to treatment options and patient experience.

4. Ownership

Knowing who owns the hospital will also tell you a great deal about how the hospital will operate. Some hospitals are part of larger networks that offer a streamlined approach to management. While some physicians feel this improves efficiency and patient experience, some feel it removes the emphasis from the patient and makes treatment less personal.

Private hospitals often offer access to the latest technologies and equipment, but may under-serve community members who need healthcare the most.

Government-supported facilities operate via grants and other public funds. They have greater restrictions but also reach out to members of the community who may not otherwise receive healthcare and medical treatment.

5. Specializations

Specialized hospitals appeal to physicians who entered the medical field with plans to treat people with a specific condition. Most physicians choose specializations due to personal reasons, an area of intense interest or a desire to provide a comfortable life for themselves and their families.

- **Some other types of hospitals**

Now that you have a general idea of the main categories of hospitals, it's time to explore individual types to learn more about what they have to offer.

There's a vast array of types of hospitals out in the world today, so let's get started.

- **Academic medical centers**

Academic medical centers often serve specific medical schools or universities. Facilities like this offer a variety of services to treat the general healthcare needs of their communities as well as specialized services while simultaneously offering educational opportunities to students in the healthcare field.

- **Acute hospitals**

Acute hospitals focus solely on the treatment and care of people with short-term needs like the following Illnesses, Diseases, Injuries, Surgeries Surgery recoveries, Obstetric care, Postnatal care

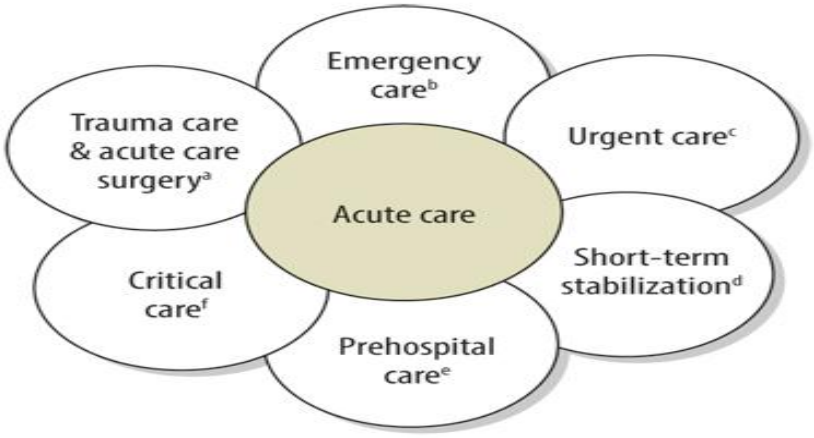

Fig. 2: Acute Care & Hospital.

They are not equipped to handle chronic or long-term care for patients. According to EOSCU, approximately 91 percent of hospitals are acute care facilities. Most people who are treated in acute care hospitals stay for 10 days or fewer.

- **Ambulatory surgery centers**

Focusing on same-day surgical care, ambulatory surgery centers offer surgical procedures without requiring patients to be admitted to hospitals for the operation or recovery. They are cost-effective options for patients and provide a less stressful surgical environment than many hospitals can provide.

- **Children's hospitals**

Children's hospitals specialize in the care and treatment of children and the conditions that affect younger patients. It is a type of specialty hospital, which means the staff has received additional training to aid in the treatment of childrefor a variety of acute and long-term medical needs.

Fig. 3: Children's hospitals.

In addition to offering medical treatment to children, children's hospitals are widely praised for the level of psychosocial support they offer the children in their care and their families — especially in the case of children who require long stays in the hospital.

- **Clinics**

Clinics are typically much smaller than hospitals and operate solely on an outpatient basis. They aren't equipped to keep patients overnight for recovery, treatment, diagnosis or observation.

- **District hospitals**

District hospitals serve as healthcare hubs for their geographic regions. They have more extensive intensive care facilities and long-term care programs in addition to providing necessary treatments in fields like obstetrics, general surgery, plastic surgery and more.

Fig. 4: District hospital.

- **For-profit hospitals**

For-profit hospitals are investor-owned facilities. This means the profits they earn go to shareholders who have invested in the facilities rather than back into the hospital for improvements, new services and medical advancements.

- **Free hospitals**

Free hospitals do not charge patients for the services they provide. They are generally located in areas that reach out to patients of poor socio-economic classes and frequently operate at a loss. As a result, they often struggle to provide the amenities and level of services many physicians strive to offer.

- **General services hospitals**

General service hospitals focus on general and necessary services for the community, like:

A. Surgery
B. OB/GYN services
C. Pediatric services
D. General medical care

Fig. 5: General hospitals.

They offer little in the way of specialty services and may not be equipped to provide long-term care to patients. Most hospitals today are general services hospitals.

- **Government-Funded hospitals**

State or federal governments provide grants or public funding to government-funded hospitals to operate. Veterans hospitals are perhaps the most famous of these kinds of hospitals. EOSCU reports that there are currently 213 federally funded hospitals in the U.S.

- **Hospitals in a system**

Hospital systems are a lot like hospital networks. Larger systems can offer specialty services as well as general services, though patients may have to travel to a different facility to have their needs met. This helps reduce costs for the hospitals while offering confidence among patients that they will receive a certain standard of care from any hospital within that system.

- **Independent hospitals**

Independent hospitals are becoming increasingly rare as healthcare costs rise and many hospitals look for the financial benefits network affiliation provides.

However, there are still independent hospitals throughout the country finding great success while meeting the medical and healthcare needs of their communities.

- **Large hospitals**

Because they typically have 500 or more beds, large hospitals are capable of serving the broader needs of the community. Some larger hospitals offer a combination of acute and long-term care services while also providing research opportunities in some cases and accommodating a variety of specializations.

- **Local hospitals**

While once the backbone of healthcare in America, many local hospitals are either facing closure or being incorporated into larger healthcare systems so that they can continue to provide necessary services to their communities while meeting the substantial financial burdens local hospitals experience.

- **Long-term hospitals**

Hospitals providing long-term care can meet the needs of patients suffering from chronic illnesses, requiring psychiatric care, cardiac rehabilitation, or who are going through extensive rehabilitation after accidents or injuries. This might include hospitals that offer burn centers, cancer centers, and similar types of care facilities.

- **Medium hospitals**

Medium hospitals usually have between 100 and 300 beds though some may have as many as 500 beds.

- **Municipal-funded hospitals**

Municipal-funded hospitals are community hospitals funded, at least in part, by local governments. They are often small facilities that provide limitedacute care services to local populations.

Fig. 6: Municipal hospitals.

- **Not-for-profit hospitals**

Nearly two-thirds of all hospitals located in urban areas are considered to be not-for-profit hospitals, meaning they are not beholden to shareholders to earn profits. Many of these nonprofit facilities receive tax benefits that are unavailable to for-profit facilities.

- **Osteopathic hospitals**

Focusing on diet and the environment to influence health as well as manipulation of the body, osteopathic hospitals take a holistic approach to healing and patient care. Rather than treatment, osteopathic hospitals tend to concentrate on preventative measures.

- **Private hospitals**

Owners and investors — who recover their investments via fees charged to the patients they assist or their insurance providers — provide funding for private hospitals. Facility owners and administrators determine the budget, manage finances and ensure compliance with various codes and regulations related to medical care.

Patients often prefer private hospitals because of the many offered amenities, better doctor-to-patient ratios and a variety of services that are unavailable in facilities that have more limited budgets.

- **Psychiatric hospitals**

Psychiatric hospitals attend to the mental health needs of their patients. The staff who work in them treat a variety of mental health conditions through the use of medications, psychotherapy and behavioral therapies. Some hospitals and treatment centers focus on short-term treatments while others offer long-term care for psychiatric patients.

- **Rehabilitation hospitals**

Rehab hospitals and treatment centers focus exclusively on patient rehabilitation for a variety of illnesses and injuries. Some facilities offer both inpatient and outpatient rehabilitation services while others focus exclusively on inpatient services and intensive therapy regimens.

Fig. 7: Rehabilitation hospitals.

- **Small hospitals**

As the name implies, these are typically small-scale operations with fewer than 100 beds. Many of them are located in rural communities with no other hospital or medical center within short driving range or offer highly specialized treatment options.

- **Research hospitals**

Research hospitals commit their efforts to researching cures for certain conditions in addition to treating illnesses, diseases, injuries and various healthcare conditions. St. Jude Children's Research Hospital may be one of the most famous research hospitals in the United States, but there are plenty more.

Fig. 8: Research hospitals.

- **Rural hospitals**

Usually fitted with 100 or fewer beds, rural hospitals are located outside large urban areas and operate on small budgets. They generally provide basic care. If needed, they'll transport patients in need of more critical care to larger hospitals in their regions.

Fig. 9: Rural hospitals.

Nearly 72 percent of all rural hospitals are defined as "critical access" hospitals, meaning they have fewer than 25 beds and are located 35 or more miles from the next-nearest hospital. According to American Hospital Association, there were 1,825 rural community hospitals in 2016.

- **Super specialty hospitals**

Super specialty hospitals offer highly specialized treatments along with a staff that has received extensive education and training in isolated conditions. They will often have cutting-edge equipment to offer highly sophisticated diagnostic and treatment options to the patients who visit them.

Fig. 10: Super specialty hospitals.

Specialized hospitals or units within hospitals may have access to treatment options that aren't available at other hospitals, such as organ transplants, specialty medical devices and medications that require very precise handling and training to administer.

- **Specialty hospitals**

Specialized hospitals are typically affiliated with larger hospitals or healthcare networks and offer specific treatments. You may find a variety of specialty hospitals within one community, including:

1. Women's hospitals
2. Children's hospitals
3. Cardiac hospitals
4. Oncology hospitals
5. Psychiatric hospitals
6. Trauma centers
7. Cancer treatment centers

Specialty facilities typically excel at providing the types of services listed above while offering limited specialized care, other than the basics, for conditions outside their specialties.

➢ **Emergency service for hospitals**

- **Five steps of emergency care**

Sudden illness or injury can occur without warning, and while no one typically plans a trip to the Emergency Department, everyone should know what to expect after they arrive. The Emergency Department (ED) at St. Mary's Regional Medical Center provides urgent care to patients who have traumatic injury, major illnesses or other issues that require immediate treatment. The staff includes physicians, nurses and other healthcare professionals who follow specific procedures so that you can get the care you need as quickly as possible. Following are the five steps to expect when you arrive at the St. Mary's Regional ED.

The steps of care

1) Triage
2) Registration
3) Treatment
4) Reevalution
5) Discharge

1) Triage

Triage is the process of determining the severity of a patient's condition. Patients with the most severe emergencies receive immediate treatment. That is why some patients may receive medical care before you, even if they arrived at the ED (Emergency Department) after you.

When you arrive at the ED (Emergency Department), emergency technicians determine the reason for your visit. A registered nurse will take your medical history and perform a brief examination of your symptoms. The triage registered nurse might assign you a priority level based on your medical history and current condition according.

Level 1 – Resuscitation (immediate life-saving intervention);

Level 2 – Emergency;

Level 3 – Urgent;

Level 4 – Semi-urgent;

Level 5 – Non-urgent

In some cases, an emergency registered nurse may start diagnostic testing to decrease the time spent waiting for medical treatment. Should your symptoms worsen as you wait, notify the emergency technician or triage nurse immediately. Only one person may accompany the patient in the triage area.

2) Registration

The registration process is important for two reasons: it lets the ED staff gather information for your patient record and we obtain your consent for treatment. Both are necessary to order diagnostic tests to enable the physician determine.

The best treatment option for you. Patient Access Specialists can conduct bedside registration for patients who have been taken directly to a treatment room.

3) Treatment

Every patient who comes to the Emergency Department at St. Mary's Regional receives treatment from an attending physician or mid-level practitioner. Depending on your condition, a registered nurse may start an intravenous (IV) line. Physicians may also order blood tests on an urgent basis. Test results help emergency medicine physicians assess your condition. The results could be available within one to two hours, while you are in the ED.

However, some test results may require a longer wait. During your treatment, the staff in the ED will help make sure you are comfortable and informed. Only two visitors are allowed at one time in the patient room.

4) Reevaluation

An ED physician or mid-level practitioner will reevaluate your condition after they receive your test results because the results may give them additional insight into the type of treatment you need. You know your body.

How you feel can be just as important as your test results, so be sure to let physicians or nurses know about any pain or discomfort you may feel. The staff may also contact your personal physician for additional information. If you do not have a personal physician, we may refer you to an on-call physician.

5) Discharge

Part of our job is to keep you healthy long after you've left the ED. All patients receive written home-care instructions to follow when discharged. The instructions describe how you can safely care for your wound or illness, directions for your prescribed medications and recommendations for follow-up medical care. It is important to fully understand all instructions. If you have a question – let us know while you're here.

You may receive a phone call asking for your opinions about your stay. Your comments allow us to continually provide outstanding emergency care to all our patients.

- **Clinical services**

I) Outdoor patient department (OPD)

The facility shall be planned keeping in mind the maximum peak hour patient load and shall have the scope for future expansion. OPD shall have approach from main road with signage visible from a distance.

1. Reception and Enquiry
2. Waiting Spaces
3. Layout of OPD
4. Patient amenities
5. Clinics
6. Nursing Services

7. Quality Assurances in Clinics

Desirable services

1) Air-cooling
2) Patient calling system with electronic display
3) Specimen collection centre
4) Television in waiting area
5) Computerized Registration
6) Public Telephone booth
7) Provision of OPD manager

➢ **History of hospital**

The Indian medicine begins to decline from the Mohammedan invasions in the tenth century.

- During Akbar's period the Unani medicine system spread all the way through the greater part of India.
- During his period, there were a good number of government hospitals, as well as private clinics run by many physicians.
- The modern system of medicine in India was introduced in the 17th centaury with the arrival of Christian missionaries in South India
- In the 17th centaury, British empire established first hospital at Chennai in 1664.

➢ **Patient safety essential**

Hand washing facilities in all OPD clinics, wards, emergency, ICU and OT areas. Safe clinical practices as per standard protocols to prevent health care associated infections and other harms to patients. There shall be proper written handing over system between health care staff. Formation of Infection control team and provision of trained Infection Control nurses.

For Disposal of Mercury, guidelines may be seen at Annexure II B. Regular Training of Health care workers in Patient safety, infection control and Bio-medical waste management. Compliance to correct method of hand hygiene by health care workers should be ensured.

➢ **Construction and planning**

Planning for health care facilities shall include, in addition to space and operational needs, provisions for infection control and protection of patients during any renovations or new

construction. Continual health care facility upgrade through renovation and new construction involving existing facilities can create conditions that can be hazardous to patients. During the programming phase of a construction project, the owner shall provide an Infection Control Risk Assessment.

Fig. 11: Planning and Design.

An ICRA (Infection control risk assessment) is a determination of the potential risk of transmission of various agents in the facility. This continuous process is an essential component of a facility functional or master program to provide a safe environment of care.

The ICRA (Infection control risk assessment) shall be conducted by a panel with expertise in infection control, risk management, facility design, construction, ventilation, safety, and epidemiology. The panel shall provide updated documentation of the risk assessment throughout planning, design, and construction.

The ICRA (Infection control risk assessment) shall only address building areas anticipated to be affected by construction. The design professional shall incorporate the specific, construction-related requirements of the ICRA in the contract documents. The contract documents shall require the constructor to implement these specific requirements during construction.

The ICRA is initiated in design and planning and continues through construction and renovation. After considering the facility's patient population and programs, the ICRA shall address but not be limited to the following key elements:

a) The impact of disrupting essential services to patients and employees
b) Patient placement or relocation

c) Placement of effective barriers to protect susceptible patients from airborne contaminants such as Aspergillus sp.

d) Air handling and ventilation needs in surgical services, airborne infection isolation and protective environment rooms, laboratories, local exhaust systems for hazardous agents, and other special areas

e) Determination of additional numbers of airborne infection isolation or protective environment room requirements.

➢ **Advantages**

1. Round the clock care, usually by well trained nurses and doctors, in a hygienic atmosphere, which will help stop any new infections, and keep the present ones in check as they are being treated. Also having machines able to keep tabs on what your body is doing, so that quick action can be taken.
2. The most important advantage of health care is the monetary. With the proper health care, person can save his time and money in a perfect way. Now the question is that how this is possible? Well the simple answer is that if person maintain his proper health care then there is no need for the person to visit or consult to the doctor again and again. In this way, he can save his time and doctor fee.
3. The second important and main advantage of health care is that person realizes the importance and value of health. By maintaining the perfect health care plan, person comes to know that what important items are necessary for the health care.

➢ **Disadvantages**

1. Not all hospitals are up to the task, clean, or efficient. The food is generally lousy. The clothes they have you wear are less than stylish. You are limited to what you can do, who you can see, when you can see them, and both smoking and drinking are not allowed.
2. The most important disadvantage of health care is that by applying the health care plan person ignore the importance of doctors and physicians. He thinks that his health care plan is perfect and ideal and he doesn't need any doctor assistance.
3. The second disadvantage of health care is that for saving the money person ignore to visit to the doctor until the problem gets out of control. Person don't know that doctor recommend certain medications for his condition like allergies, bacterial infections etc.

➢ **Objective**

To provide safe, secure, and high quality medical care. To foster excellent health professionals who will lead into the future. To support and develop community health and medical services. To promote advanced medical care and disseminate it to the world. A hospital management system is a software designed to manage all the areas of a hospital such as medical, financial, administrative and the corresponding processing of services.

Reduce hospital operating costs, Better co-ordination among the different departments and Provide top management a single point of control.

Hospital System handles activities of major departments in a hospital like

1. Front Office/OPD Management
2. Patient management (scheduling, registration,etc)
3. Patient care management and departmental modules (radiology, pharmacy and pathology labs)
4. Investigative Labs
5. Billing
6. Medical Stores
7. Financial Accounting (billing, insurance processing, materials management,accounts payable/receivable, payroll)
8. Payroll

Hospital management system can be developed by using waterfall model which is a popular version of development life cycle model for software engineering. It describes a development method that is linear and sequential. It has distinct goals for each phase of development. In this model once, a phase of development is completed.

➢ **CONCLUSION**

In the final analysis, VE (Volunteer Experience) is not only beneficial, but essential because of the following:

- The functionality of the project is often improved as well as producing tremendous savings, in both initial and life-cycle costs.
- A “second look” at the design produced by the architect and engineers gives the assurance that all reasonable alternatives have been explored.

- Cost estimates and scope statements are checked thoroughly, ensuring that nothing has been omitted or underestimated.
- Seek more public input from a wider base, not only from professionals but from patients and other consumers.
- Prepare more committee-generated changes to reflect the collective knowledge and experience of the HGRC (Health Guidelines Revision Committee) members.
- Encourage and sponsor research projects to support the evidence-based decision-making process.
- Allow more time to study and evaluate proposals for changes and to comment on changes.
- Improve the format, readability, and indexing or searchability of the document to make it a more useful and user-friendly tool.
- It helps to ensure that the best value will be obtained over the life of the building

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