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Diabetes Day Hospitals:

A Care Facility Serving People with Diabetes

The high prevalence of diabetes and the lifelong therapeutic and educational needs of those living with it require accessible and flexible care models. Routine follow-up in a primary care or hospital outpatient clinic is useful for stable situations and scheduled screening for chronic complications. However, when a decompensation occurs or complex treatment needs to be initiated, providing rapid, expert, and multidisciplinary outpatient care offers undeniable benefits to people with diabetes and their caregivers.

WHAT IS A DIABETES DAY HOSPITAL?

A **Diabetes Day Hospital** (DDH) is a hospital service designed to provide emergency and complex diabetes care without the need for inpatient admission. This means patients receive comprehensive, specialized treatment and can return home the same day. The flexibility in their scheduling also allows for frequent, short-term follow-up until the health issue is resolved. In this way, in a high frequency of cases, an intensive follow-up of the presenting health problem is ensured and its resolution achieved, avoiding visits to the emergency department and hospital admissions.

The mission of the DDH is to offer a service to its hospital area. Therefore, effective communication and access from other care settings are essential. These include Primary Care Health Centers, Emergency Departments, oncology-hematology day hospitals, high-risk obstetrics clinics, outpatient Endocrinology and Nutrition clinics, other hospital specialties' clinics, and inpatient wards.

Therapeutic education tailored to the needs of each situation is a fundamental pillar of the DDH's work. Thus, the DDH serves as an effective and convenient alternative for those needing rapid care for diabetes decompensations or in complex situations like the initiation of intensive insulin therapy.

WHAT SITUATIONS DOES THE DDH HANDLE?

The DDH provides specialized care to people with diabetes in various situations. In our setting, the DDH's service portfolio includes the main proposals from the Diabetes Care Process of our Autonomous Community's Health Department (1), which are:

- **Glucose Decompensations:** This includes situations of hyperglycemia, as well as episodes of frequent or severe hypoglycemia. Intercurrent illnesses and treatments that can decompensate glucose (corticosteroids, oncology treatments), or loss of adherence to therapy, are common underlying causes of these clinical situations.

- **New-Onset Diabetes Requiring Intensive Insulinization:** This scenario includes clinical suspicion of Type 1 Diabetes and also new diagnoses of other forms of diabetes where hyperglycemia requires insulinization and short-term follow-up.

- **Intensification of Glycemic Control:** Situations of poorly controlled known diabetes (HbA1c > 9% or with cardinal symptoms) where intensification efforts at other levels of care have failed, and which require significant treatment modifications and educational intervention.

- **Gestational Diabetes and Pre-gestational Diabetes in Pregnancy:** Care and insulinization for women with gestational diabetes if needed, and initial contact with women with pre-gestational diabetes, until their appointment at the Diabetes and Pregnancy Unit.

- **Support for Hospital Discharge:** Post-hospital admission care for people with diabetes in a fragile or complex chronic state with insulin treatment, serving as a transition until they are received and followed up by their Primary Care team.

WHAT PROFESSIONALS FORM THE DDH AND HOW IS ACTIVITY ORGANIZED?

DDHs are led by Endocrinology and Nutrition Services. The key to effective work in the DDH is having an endocrinologist-nurse team dedicated to diabetes, supported in cross-cutting tasks by other professionals (auxiliary nursing care technicians and administrative staff).

There must be an effective communication channel with Primary Care, Emergency, and Hospitalization professionals, either by phone or electronically, for case discussion and agile referral. This telephone contact line should also be accessible to patients being followed in the DDH during their active follow-up period. For internal organization, we recommend continuous service hours, ideally 12 hours, to ensure the effectiveness of treatments initiated during the day and the possibility of continuity of care early the next day, when the patient's situation requires it. Care protocols and structured therapeutic education programs must be developed for the clinical situations included in the DDH's service portfolio. Once the care program is completed and the reason for referral to the DDH is resolved, the patient will return to their reference clinical team (at the Primary Care or Hospital care level), depending on each situation. »

ACTIVITY IN DIABETES DAY HOSPITALS (DDHS) MUST BE FLEXIBLE ENOUGH TO RESPOND TO URGENT DEMAND AND PROVIDE STRUCTURED FOLLOW-UP FOR PATIENTS UNTIL THEIR CONDITION IS RESOLVED

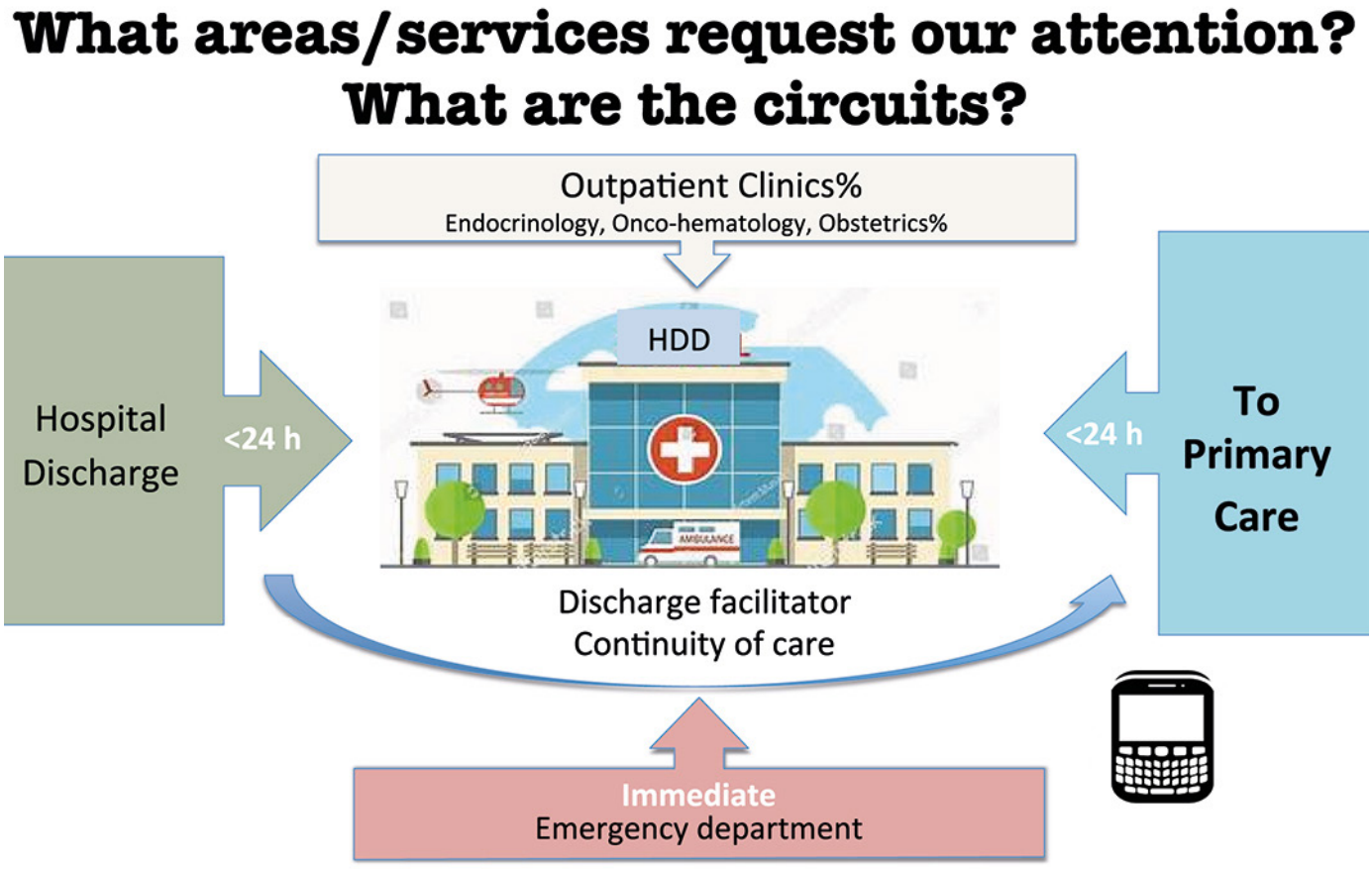

FIGURE 1

WHAT'S A DAY LIKE AT THE DDH?

Accessibility and response times in the DDH for each clinical situation are key elements; for this, communication and appointment scheduling tools are established in the health areas where they are implemented ***(Figure 1)***. In DDHs led by Endocrinology and Nutrition Services, individuals older than 14 years with any of the indications defined in our service portfolio are received. These indications are disseminated and known in our hospital area, Emergency Department, and hospital clinical services involved in the care of people with diabetes.

Activity in DDHs must be flexible enough to meet non-delayable demand and structured patient follow-up until their condition is resolved. The activity is intense; in our DDH located at Hospital Universitario Virgen Macarena (Seville, Spain), we treated a total of 1720 new patients in 2024, carrying out over 6494 activities and educational sessions. The profile of the patients served aligns with the following description: 58.2% were male, predominantly with T2DM (69.2%). The most frequent source of referrals is Primary Care (50.8%), and the main reason for consultation is diabetes decompensation/intensification of control (83.2%).

Of note, the complexity of cases treated is high. For instance, 6.8% of our activity provides support for hospital discharge; 6.1% of patients come from high-risk Obstetrics Units; and 6.8% from Oncology-Hematology Day Hospitals. This necessitates having expert diabetes professionals, defined care programs, and diabetes education adapted to the level of complexity and needs in each case.

Due to the increasing use of technology and telemedicine, the DDH is progressively expanding its response capacity with non-presential follow-up models.

WHAT ARE THE BENEFITS OF THE DDH?

1. **Faster Care:** People with diabetes often face serious and unexpected complications that benefit from immediate attention. The DDH allows them to receive this treatment quickly and efficiently, preventing these situations from progressing to more severe forms where hospitalization would be inevitable.

THE DDH MODEL NOT ONLY BENEFITS PATIENTS, BUT IT'S ALSO AN ADVANTAGE FOR THE HEALTHCARE SYSTEM AS A WHOLE

» **2. Fewer Diabetes Hospitalizations:** By being able to treat many diabetes complications on an outpatient basis, the DDH reduces the need for hospitalizations related to acute diabetes decompensations. This frees up hospital resources, reduces visits to the emergency department, and in many cases, avoids hospital stays that could be prevented with this model (2).

3. **Improves the Perception of Healthcare for People with Diabetes and Their Caregivers:** The rapid and comprehensive care offered by the DDH allows complex situations to be resolved in an outpatient setting specialized in diabetes care. This responsiveness is highly valued by patients; furthermore, providing educational tools within the same process allows for better diabetes management, improves quality of life, and reduces serious health problems in the future.

4. **Facilitates Teamwork Among Professionals and Provides Them with Flexible Tools for Care:** The endocrinologist and the nurse dedicated to care, and therapeutic education share the physical workspace, facilitating communication and joint decision-making. Additionally, a 12-hour telephone line is available, which facilitates not only referrals but also consultations and bidirectional communication with Primary Care and Hospital professionals.

WHY IS THE DDH IMPORTANT FOR THE HEALTH SYSTEM?

The DDH model not only benefits patients but also provides an advantage for the healthcare system. By reducing the frequency of diabetes-related admissions, hospitals can focus on more severe cases and ensure that patients receive the most appropriate care.

This model also saves costs and optimizes the use of hospital and Emergency Department resources, making care more efficient.

For all these reasons, the Spanish Society of Diabetes (SED) and the Spanish Society of Endocrinology and Nutrition (SEEN) have championed the value of this care model. Together with the Spanish Diabetes Federation (FEDE) and other relevant scientific societies and national bodies (Spanish Society of Primary Care Physicians, Spanish Society of General Practitioners and Family Physicians, General Council of Official Nursing Colleges of Spain, Spanish Society of Health Managers), they have offered a review of its effectiveness and useful tools for its implementation in our Spanish National Health System (2). D

CONCLUSIONS

The DDH is an innovative and effective solution that improves care for people with diabetes. It offers accessible, comprehensive, and expert care without the need for hospitalization, improving satisfaction with the healthcare system and reducing healthcare costs.

Accessibility and communication between professionals are key for the DDH to guarantee its service capacity to the diabetic population in the health area it serves.

The DDH constitutes a diabetes care model that brings undeniable benefits to people with diabetes, to the professionals dedicated to diabetes, and to the healthcare system in which it operates. Therefore, we must contribute to its advancement within our health system.

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