

NaClin information system for processing medical documentation and managing hospital operations on the Microsoft Power Apps platform

Microsoft Dynamics 365 or the Microsoft Power Apps platform, is an integrated system for comprehensive coverage of customer care processes in various organizations.

NaClin is part of an integrated solution for medical facilities. Although NaClin's record of medical services is part of it, the actual billing and invoicing of care provided to selfpayers and health insurance companies takes place in the hospital's ERP system (NaHERP). Similarly, accounting for consumed material and medicines takes place in the ERP.

Among other things, NaClin includes:

- Identification of patients (following the Central Register)
- Planning / Order calendars
- Patient waiting room management
- Bed pool management
- The possibility of users accessing the system from mobile devices (responsive design)
- Administration of health insurance company codes
- Record of health care provided
- Records of drug and material consumption
- On-line integration with ERP system NaHERP (via Microsoft Dataverse) and with telemedicine (NaTMed)
- Records in the form of continuous paper
- Option to use Al virtual expert

Key industry needs

- Outpatient card and records
- Medical record / Birth record
- Nursing documentation
- Daily reports
- Operating protocol
- Surgery / Medication
- Examination applications / Reciept of results
- Dismissal news
- Recipes
- Health care reporting to national registries
- Compliance with the requirements of ISO 9001 and ISO 27001 standards
- Compliance with the HL7 standard

NaClin extends the standard Microsoft 365 with advanced tools for managing medical processes and managing medical documentation, including examination requests and results.

NaClin can be integrated with any ERP system and/or system for invoicing health insurance companies through defined interfaces. However, it is an advantage when NaClin is integrated with Navertica HERP based on Microsoft Dynamics Business Central. After all, both systems partly share the same database (Microsoft Dataverse).

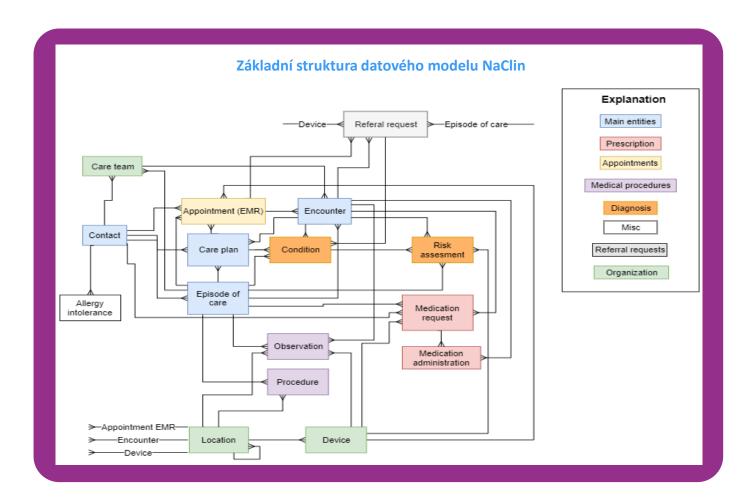






Data model

The NaClin data model is derived from the FHIR (Fast Healthcare Interoperability Resources) model, which is part of the HL7 international standard and is supplemented with other entities by NAVERTICA. The data model created in this way is generic with all necessary bindings and can be populated with data from any medical field.



The NaClin data model contains all the necessary entities including the relationships between them. It also includes individual predefined data fields for various medical fields. Structures and processes can be configured and tailored to a given medical facility.

E.g. for small outpatient medical facilities, it is possible to simplify NaClin in terms of data and processes. Such simplification will reduce the burden on the few medical staff, which means that their activities will not be as complex as those involved in carrying out the complex clinical processes of a large hospital.

The model is completely similar both for outpatient workplaces (ambulatory card and outpatient record) and for inpatient departments (medical record, daily record).

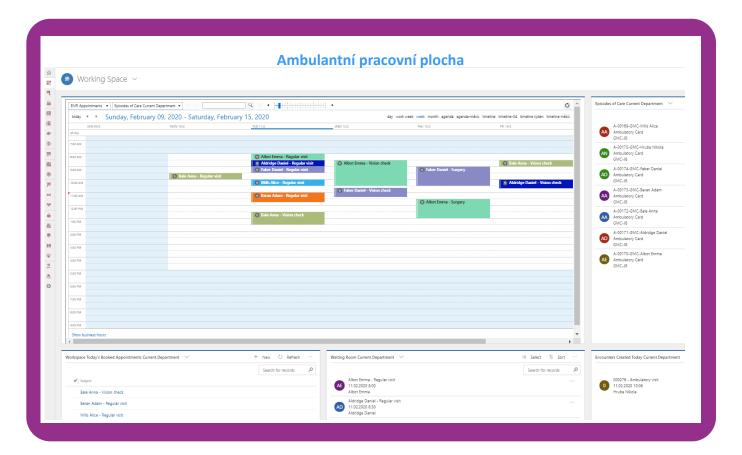




The user interface

NaClin allows working at different levels of detail, from overview screens of workplaces to detailed records, whether these relate to patients, medications, visits, medical procedures or any of the many other records included in the solution.

The user has an environment adapted to their role in the diagnostic-therapeutic process, and the screens they work with correspond to this. Within the framework of their activity, the user can be assigned to multiple roles, while access rights and work-flow are set according to role and workplace. The very meaning and content of roles and workplaces can be defined – without programming, data fields can be created or changed in individual entities for storing medical data, which enables full individualization of individual medical facilities according to their needs.



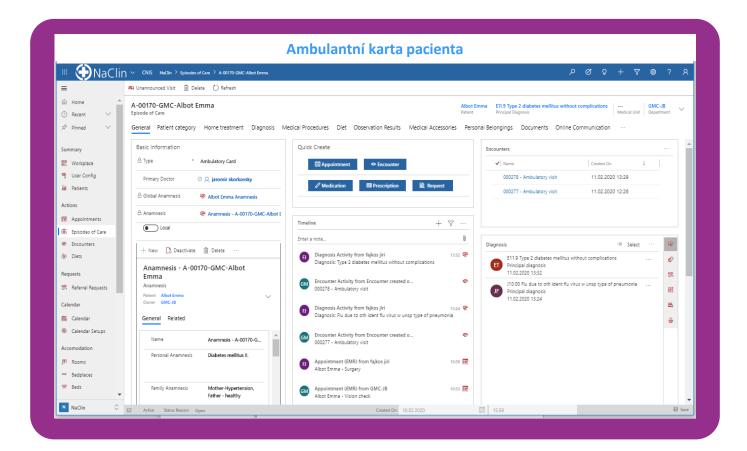
The workspace for healthcare workers is always divided into several optional areas so that the doctor (or nurse) does not lose track of which patient they are working with and which activity they are performing.

The workspace can, for example, take the form of an overview panel for an outpatient clinic displaying a calendar of booked patients and adjustable waiting room queues or assigning patients to specialized operations or devices.

The workspace can also take the form of previews of a medical record or outpatient card, where, in addition to control panels and icons, there are other areas such as visits, anamnesis, diagnoses, prescriptions, procedures, requests and others.







NaClin covers the areas of standard healthcare processes of ambulatory and inpatient care. The environment is set up so that the user is always shown relevant records, an organized summary of the patient's medical documentation in the medical record or ambulatory card, including the possibility of searching and filtering. Patients can be assigned to different dispensary groups.

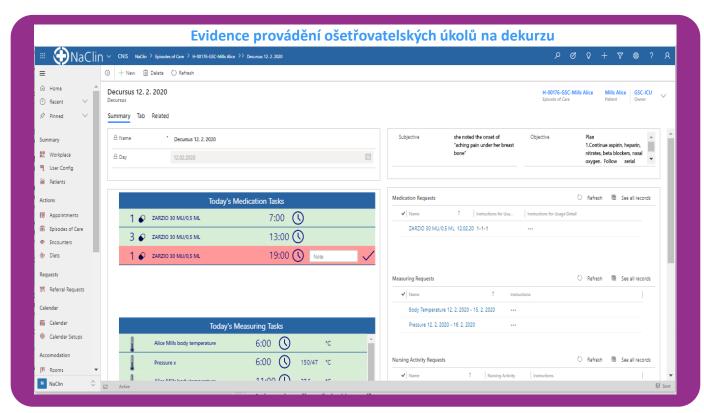
The system makes it possible to write records in the form of continuous paper and add other functionalities according to the needs of individual workplaces, including own types of patient records - e.g. pregnancy book, structured and unstructured documents and forms. In order to save time, the doctor can use predefined templates as well as texts from previous findings when writing records, while remaining informed thanks to a concise and informative timeline chronologically displaying the events related to the patient, they have the option of operational insight into previous records and can update the patient data at any time as needed. To speed up the work, NaClin enables mass input of activities such as medication, nursing procedures, etc.

An integral part of NaClin is also an interface for connecting the diagnostic complement (especially laboratories). Test requests are issued in NaClin and transferred to the laboratory system or, if the laboratory system is portal equipped, issued directly in the laboratory system. Test results are automatically transferred to patient records. It is indicated whether the doctor has already seen them or whether they are new results. Requests and results of the consular examination take place within NaClin, but it is also possible to use the interface to connect external systems.

In addition to static records, NaClin helps the worker actively; an example can be the assignment of tasks by the attending physician and the recording of their fulfillment, such as the administration of drugs, measurement of physiological parameters, nursing diagnoses.







The NaClin system is operated in the Microsoft Cloud, which has the highest level of security available in terms of technology, procedures and policies. In terms of licenses and rights, the NaClin system consists of publicly available Microsoft SW licenses, Navertica SW licenses available to everyone on the AppSource electronic marketplace, and any custom modifications made by the supplier for a specific customer, which are owned by the supplier. The customer is therefore not at risk of so-called "vendor lock-in".

Ambulance visit

- Scheduling via the patient web portal,
- Creation of the outpatient card of the patient,
- Waiting room the staff always has an overview of waiting patients, the waiting time is measured.
- Structured outpatient record (anamnesis, objective examination), requests for complementary examinations, prescriptions with the possibility of using positive sheets, printing of a medical report.
- Assignment of health services for insurance companies,
- Scheduling of follow-up appointment.

Inpatient department

- Patient admission, bed allocation
- Structured medical records
- Therapeutic plan, structured discourse
- Surgery, medication, fulfillment
- Nursing plan and documentation,
- Requests / receiving results,
- Measurement of physiological indicators
- Translations of patients within the department or between departments setting according to the established logic in the hospital facility,
- Medical discharge of the patient.

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