MedAX - Healthcare Solution for Microsoft Dynamics AX

Microsoft Dynamics AX (Microsoft ERP)
Hospital Management Information System

What is MedAX?

MedAX is a vertical business solution developed on Microsoft Dynamics AX (Microsoft ERP).

MedAX is using two different environments in hospitals to realize and simplifies all medical and financial workflow. You can't meet the unique needs of the healthcare industry with generic software that treats all industries equally.

At MedAX we understand that the healthcare industry. So, MedAX is specifically designed for healthcare, which means it offers the broadest, deepest solutions for all organizations that serve the healthcare delivery model.

All data storage and business logic is planned and implemented on Dynamics AX. Financial working environment is also in Dynamics AX. For medical working environment MedAX has a windows forms application build on .Net Framework, named “MedAX Client”.

MedAX is not a third party hospital information management system integrated with AX, but is fully developed on AX.

All the financial and trade operation is based on standard AX financial and trade modules.

For medical operations all the medical objects and the business logic is created in AX AOT with data dictionary objects and classes, so the whole solution is developed on X++. Both the medical and financial data and logic is available through Dynamics AX Rich Client.

MedAX is a complete HIS (Hospital Information System) develop and positioned in Dynamics AX as an ERP module. MedAX enable healthcare organizations like yours to connect strategy with operational execution, manage trends and performance, optimize and align resources, connect disparate technologies, and deliver actionable insight and intelligence.
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MedAX covers all medical and administrative workflows in hospital while Dynamics AX is covering all corporate needs. With Dynamics AX and MedAX add-on all information management needs in hospitals including medical and back office are solved in one solution easily.

MedAX brings a new view and understanding on HIS. Powerful ERP development environment of Dynamics AX is used to develop all medical business logic of HIS. This makes MedAX a very flexible solution. Partners and customers have ability to customize all application by implementing UI, workflows, reports, etc. Installations have an implementation process based on customer needs.

As a result, there is no need for hospitals for fit in their HIS, but the HIS fits to hospital.

**Medical Functions**

MedAX is the solution you’ve been searching for. With industry-specific capabilities built in, MedAX gives you the tools to conquer your most important industry challenges.

MedAX has the coverage for all medical needs as a HIS with a large and detailed patient database. This database has ability to store all identification, domestic, social and contact information about patient.

MedAX also stores all medical information related to patient like allergies, injury, disease and operation history of patient and blood related family, treatment and prescription history, test results, radiology and pathology reports, observation notes etc.

Easy to use clinical interfaces for outpatient give ability to collect detailed information about patient on physical examinations while giving a wide perspective to medical personal by patient’s past and present medical data.

Much information about patient and treatment can be stored in application including exam notes, diagnoses, treatment plans, prescriptions etc.

By treatment plans, treatment process can be easily monitored and planed as measurable and traceable. Reminders allows to inform medical personal and also patient about incoming treatment steps.

Appointments can also be managed by MedAX.
Wide outpatient functionality also included in MedAX. All clinical and administrative data can be stored in MedAX like rooms, beds, hospitalization and discharge info etc. Daily prescriptions, diet, treatment orders, monitoring orders can be stored and also process of these can be traced through MedAX.

Reminders and easy to use schedules help medical personal to manage treatment process. Operation planer makes everyone to be ready on time for operation. Resource planning functions allows managing operation rooms, patient rooms, crew, doctors, supplies and all other resources easily.

LIS (Laboratory Information System) and RIS (Radiology Information System) functionality is provided by Analysis Module of MedAX. You can easily manage test results, report templates, minimum and maximum values, critical and crisis values. Report templates can be created as rich texts with tables and also images. Order data comes from inpatient, outpatient, ER, and surgery room modules. Also all result can be send back to requesters and to doctors online.

All result are stored and indexed in MedAX as patient related medical data. These results can be seen by medical personal as they needed in the future. Also you run data analysis on these result, and monitor changes, see results as historical graphics. Order and result workflow runs seamlessly with all other modules of MedAX.

Reminders can be set for future and repeating tests to inform medical personal or patient. There is also ability to define alarm for crisis value to inform responsible people immediately.

Results can start, end or pause workflows. For example a critical infection can redirect an operation approval workflow for more detailed consideration. Medical equipment integration is possible. MedAX can send list of tests to study to medical devices and can collect the results back. PACS communication is possible too.

Continuous treatments like physiotherapy or dialysis can be traced by MedAX. There is also a large functionality for other departments of hospital like housekeeping, pharmacy, food etc.

**Administrative Operation Management Functions**

One of the key values of MedAX is perfect integration with Dynamics AX (Microsoft ERP) modules. All services provided by hospital, medicines and medical supplies are defined in inventory module of AX. All functionality of ERP, which makes a great difference, is available on medical data.

Detailed inventory management functionality of AX makes item tracing with locations and areas, usage and cost control, transfer and purchase planning, etc. possible. Party and serial tracing allows managing expiration date control for medicine and medical supplies.

Detailed pricing engine allows creating many price lists and agreements. Patient data can be used for selecting agreements and price lists automatically and manipulating prices.

While the personal runs medical workflow, MedAX automatically generates financial data. Multiple invoicing for visit is possible. Fees are automatically
calculated for outsourced services. Personal fees and bonuses are calculated with the data collected on medical workflow too.

All department and personal activities can be traced. Internal invoicing or familiar mechanisms can be used between departments to measure efficiency of all organization units and operations.

Because all medical and administrative data about all operations are stored as related in single application, BI implementation becomes easier and provides higher quality.

**Technology**

MedAX built on Dynamics AX 2012.

Dynamics AX 2012 has a deep integration with other Microsoft technologies like

- SharePoint
- Lync
- Exchange

Integration brings a great mobility to MedAX.

Also MedAX tested and ready to be implemented with many systems that hospitals uses, like

- Barcodes,
- RF Ids,
- Smartcards,
- Medical Clients,
- Kiosks,
- Touch panels,
- etc.

Medical data is rendered in paper look as much as possible. This makes data more readable and more understandable for medical users.
Executive Summary

With MedAX you can:

- Standardize, centralize, and automate business processes in your hospital
- Consolidate your enterprise software to reduce costs
- Deliver more predictable service performance and business outcomes
- Reduce delivery costs through improved efficiencies and expense reduction
- Move from silo-driven data to hospital-wide information simultaneously across the enterprise

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