

MAKING SOCIAL CARE TECHNOLOGIES ACCESSIBLE TO ALL

Care Management Software

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.











Table of contents

Introduction

- 1. What is care management software?
- 2. Cygnus
- 3. Cerner Millennium
- 4. Epic EMR
- 5. AthenaHealth

Comparison













Introduction to the catalog

- 1. Care management software overview
- 2. Target group











Course Introduction



1. Care management software overview

What is the care management software about?

Care management software is a suite of digital tools designed to address challenges in **healthcare coordination**, **data management**, and **patient engagement**. It integrates features such as care coordination, patient data management, task automation, analytics, and patient engagement tools. It also facilitates collaboration among healthcare providers, centralizes patient information, and automates administrative tasks.

Why does it matter?

Care management software addresses fragmented care by ensuring a unified view of patient information across multiple providers, as well as enhancing communication among healthcare professionals. Moreover, it centralizes patient data, providing a comprehensive and accurate overview for informed decision-making. Lastly, it automates routine tasks and encourages active patient participation in managing their health.











Course Introduction



2. Target group

Who is the course for?

This course is tailored for a **broad spectrum of individuals** within the **healthcare ecosystem**, such as but not limited to: ealthcare professionals, including doctors, nurses, allied health professionals, health IT professionals, and administrators in healthcare organizations.

Can I follow it?

This course is designed to be **inclusive** and **accessible** to a wide audience. Whether you are a seasoned professional or a novice in the field, the course is structured to accommodate individuals with varying levels of expertise. You can confidently engage with the material without the need for extensive prior knowledge. The content is presented in a user-friendly format, ensuring that participants with different backgrounds and skill sets can easily follow and grasp the concepts covered.













- 1. Overview
- 2. Types of Care Management Software
- 3. Privacy concerns













1.1. Overview

Care management software addresses challenges in healthcare coordination. Its purpose is to improve patient care quality, reduce errors, streamline processes.

Issues & Solutions:

- Fragmented care (multiple providers lead to disjointed services) → Integrating information for a unified patient view
- Ineffective communication results in suboptimal care → Facilitating seamless communication among healthcare teams
- Scattered patient data leads to incomplete information → Centralizing patient data for informed decision-making











SociALL

1.2. Types of Care Management Software



Telehealth and Remote Patient Monitoring



Population Health Management



Integrated Care Coordination Platforms



Patient Engagement Software



Disease-Specific Care Management



Behavioral Health Care Management



Care Transitions Management













1.3. Privacy concerns

The selection of care management software presented in this curricula entirely complies with the EU General Data Protection Regulation (GDPR).

Nonetheless, users have to consider these tools as if they were for private use. If you recommend these tools to clients, patients, or users, ensure that they understand the **potential risks to their privacy**. Clearly explain that utilizing such applications is at their own risk in terms of privacy concerns.

Additionally, emphasize that these apps cannot serve as a substitute for professional medical consultations, treatment or follow-up.











Selection of presented softwares



The adoption of care management solutions varies across healthcare organizations, and the choice of a particular solution depends on factors such as the organization's specific needs, the population they serve, and the existing technology infrastructure. Because there are a lot of CMSs we have decided to choose only 4 of them for this catalogue.

Logic of our selection:

- Duration of the company's existence
- 3 out of 4 software are in English (common for all partners)
- Belongs to the top of the CMSs worldwide
- All have a lot of features (can fit more organisations)
- Combination of CMS with more and fewer current users
- Cygnus: the most famous and used CMS in Czechia (Lead partner of the project)













- 1. Overview
- 2. Features and functionalities
- 3. Pricing and evaluation
- 4. Demonstration
- 5. Ideal use case











2.1. Overview



Overview of the software

- Cygnus stands as a comprehensive care management software designed to optimize healthcare coordination and elevate patient care. Tailored with a primary focus on social services.
- It offers a suite of features that streamline **administrative processes** and enhance the overall efficiency of care delivery.
- Its robust capabilities encompass client records, nursing documentation, electronic signatures, and various tools that cater to the unique needs of healthcare providers.



Vendor: IRESOFT



Date of creation: 2002



Project languages available: Czech



Availability: Web application (working on computer, mobile phone or tablet)



Typical users: **Healthcare professionals, IT experts,** and administrators



Privacy policy: Cloud infrastructure with backup













2.2. Features and functionalities



✓ Client Records: Organization, accessibility and management of client information.

Key features

✓ Nursing Documentation: Recording and management of nursing-related information.

✓ Electronic Signatures: Secure and digital signatures to ensure the authenticity and integrity of records



Additional features

- Catering operations for meal planning and distribution
- Recipe standardization for consistent meal preparation
- Warehouses module for inventory tracking
- ✓ Terminal for meal distribution



Integrations

- ✓ **Data sharing** via network traffic
- ✓ Integration capabilities with other relevant solutions



Interface

- ✓ Customization options for staff
- Extensive configuration options fordiverse individual workflows
- ✓ **User-friendly interface** for navigation and task execution
- Robust user account management with access rights











SociALL

2.3. Pricing and evaluation



Pricing

- ✓ Flexible payment schedules: monthly, quarterly, semi-annually, or annually.
- ✓ Organizations choose a payment plan that aligns with their financial preferences



User ratings

- Well-received among users
- Reviews highlight Cygnus as a valuable and adaptable tool



Main shortcomings

- ✓ Absence of a mobile app limits the user experience.
- Limited details on customization: it can impact adaptability to specific organizational needs.
- ✓ **Legislation and security details:** Information on security and privacy guarantees, as well as legislative compliance, could be more detailed for transparency.



Main advantages

- Emphasis on social services: support goes beyond work organization, extending to ongoing education.
- Holistic solution for care management tools such as client records, nursing documentation, and electronic signatures.
- Catering management and recipe standardization provide enhanced flexibility.
- Adaptability to diverse healthcare settings: whether utilized in retirement homes or social care facilities, the software has shown efficacy in diverse environments.



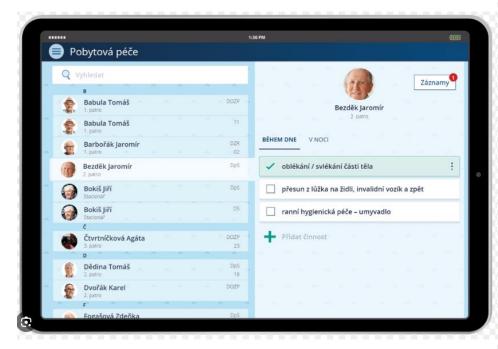






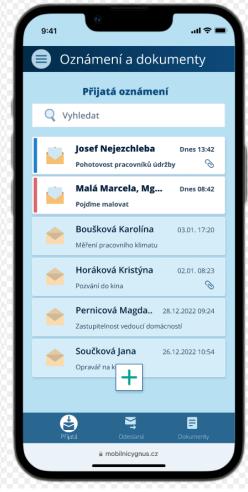


2.4. Demonstration



Residential care





Diet calendar

Notifications and documents

Source: https://www.iscygnus.cz











SociALL

SociALL

2.5. Ideal use case

- ✓ Well-suited for providers of **field and ambulatory social services**, particularly focusing on home care services, personal assistance, and field respite care services.
- ✓ For home care services streamlines client records, nursing documentation, and visit planning, optimizing the efficiency of home care providers.
- ✓ In the context of **personal assistance**, the software's focus on client records, direct communication with health insurers, and efficient performance monitoring ensures personalized and high-quality one-on-one support.
- ✓ For **field respite care services**, Cygnus addresses the challenges of delivering care outside traditional settings, with core functions like nursing documentation and automated administrative tasks proving essential for on-the-go care providers.
- ✓ The **system's ability to calculate mileage between clients** further enhances travel planning, making it an indispensable tool for field-based respite care.













- 1. Overview
- 2. Features and functionalities
- 3. Pricing and evaluation
- 4. Demonstration
- 5. Ideal use case













3.1. Overview

Overview of the tool

- It aims to transform healthcare, emphasizing patient-centric care and global well-being. The platform addresses clinical, financial, and operational needs within healthcare organizations.
- Connects 27,500 global facilities, with a workforce of over 28,000 worldwide.
- The software collaborates with leading health and care organizations globally, working towards a **proactive**healthcare system that enhances the well-being of individuals and entire communities.



Vendor: Oracle Corporation



Availability: Web platform, mobile apps



Date of creation: 1997



Typical users: **Healthcare professionals, independent practitioners, healthcare organizations**



Project languages available: ENG



Privacy policy: **GDPR compliant**











SociALL

3.2. Features and functionalities



Key features

- ✓ Real-Time Analytics: Empowers data-driven decision support for healthcare professionals.
- ✓ Health Information Exchange (HIE): Ensures secure data exchange with a single longitudinal view in each Electronic Health Record (EHR) system.



Additional features

- Registries: addresses gaps in patient care and provider performance.
- ✓ Care Management Strategies: Facilitates proactive citizen health support through effective care management.
- ✓ Telehealth Capabilities: virtual consultations and remote monitoring.



Integrations

Patient Portal Integration

enhances user interaction by involving patients in their care journey through secure communication and access to clinical information.



Interface

- ✓ The interface supports a comprehensive, enterprise-wide view of patient care across settings
- ✓ User-Friendly Navigation prioritizes ease of use
- Access to Patient Information with decision support features within clinical workflows













3.3. Pricing and evaluation



✓ Exact pricing details not provided. From research, the cost of Cerner EHR is \$25 per user per month. This pricing can vary based on aspects such as customization, training, maintenance, etc.



User ratings

Valuable tool for healthcare enterprises, particularly those seeking robust EHR functionality and analytics support



Main shortcomings

- ✓ Initial Implementation Costs: Significant initial costs
- Limited Customization: limitations in customization options may impact adaptability to organizational needs.
- ✓ Learning Curve for non-technical users.
- ✓ Specifics on the privacy policy are not detailed.









Main advantages

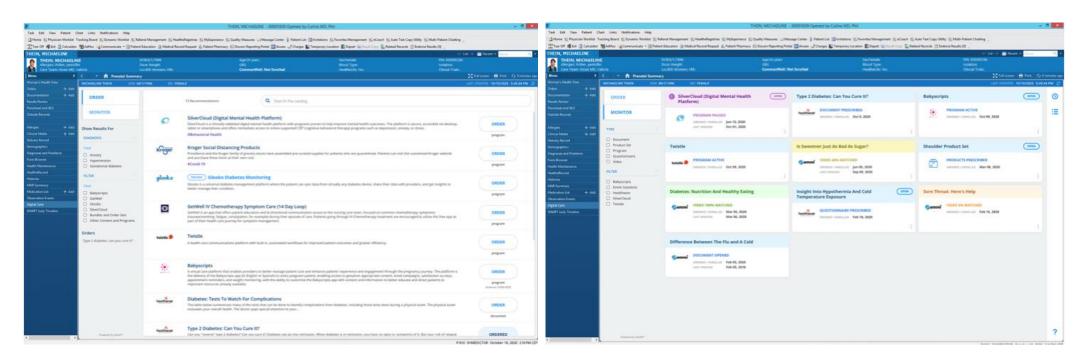
- Comprehensive Healthcare Solution: a versatile suite covering EHR, care management, citizen engagement, and health information exchange.
- Predictive Analytics empower data-driven decision support, enhancing patient care quality.
- Patient Engagement: Integrated patient portal promoting collaborative healthcare.
- ✓ **Global Support Model**: Extensive support, including systems-trained analysts, ensuring effective assistance globally.





SociALL

3.4. Demonstration



Integrated Digital Tool Ordering

Monitor Patient Engagement with Digital Tools

Source:

https://code.cerner.com/apps/xealth













3.5. Ideal use case

- ✓ Most adapted to healthcare organizations seeking **an integrated and versatile platform** that spans the continuum of care.
- ✓ Ideal for both **ambulatory and hospital settings**, it suits healthcare providers aiming for seamless data exchange, predictive decision support, and robust patient engagement.
- ✓ The platform is well-suited for **organizations committed to a global support model** and those navigating the complexities of evolving regulatory standards.
- ✓ Its adaptability makes it an ideal choice for healthcare professionals who prioritize a **comprehensive, patient-centric approach** to care management in dynamic healthcare environments.













- 1. Overview
- 2. Features and functionalities
- 3. Pricing and evaluation
- 4. Demonstration
- 5. Ideal use case
- 6. Customers











4.1. Overview



Overview of the tool

- It focuses on delivering proprietary and versatile solutions to enhance patient care and data management across diverse healthcare organizations globally.
- Its core features include a comprehensive Electronic Medical Records (EMR) system, modular customization, and cloud-based integration for seamless interoperability.
- The user-friendly interface prioritizes efficient communication and compliance with HL7 standards, ensuring widespread adaptability within healthcare environments.



Vendor: Epic Systems Corporation



Availability: Web-app and mobile app



Date of creation: 1979



Typical users: Large healthcare organizations, healthcare professionals in large facilities



Project languages available: ENG



Privacy policy: Details not provided











SociALL

4.2. Features and functionalities



Key features

- ✓ Comprehensive EMR System with modular customization and cloud-based integration for patient management.
- ✓ HL7 Standards Compliance for standardized and secure data exchange.



Additional features

- Robust Analytics Tools: Advanced analytics and predictive analytics for data-driven decision-making.
- ✓ Specialized and Customizable Modules for diverse healthcare areas.
- Cloud Hosting Options for enhanced accessibility and secure patient recordsharing.



Integrations

✓ Mobile Application (EpicCare Mobile): Secure messaging, appointment scheduling, and patient record access on the go.



Interface

- ✓ **User-Friendly Design** with an intuitive interface and streamlined patient record management and scheduling.
- Customization Possibilities for adapting to unique organizational needs.
 Continuous improvements based on user feedback for an optimized and adaptable experience.











SociALL

4.3. Pricing and evaluation



Pricing

- ✓ Self-hosted Epic EMR system costs ranging from \$1200 to over \$500,000.
- ✓ Organization-specific costs based on selected features and patient volume.



User ratings

A top-tier EMR system, lauded for its comprehensive functionality and integration capabilities. Users appreciate its powerful clinical tools, efficient note-writing, and quick order placement, enhancing overall workflow.



Main shortcomings

- Learning Curve and Implementation Involvement: Significant internal involvement required for setup and maintenance.
- ✓ **Data Sharing Challenges** with non-Epic systems.
- ✓ **Financial Investment** for implementation and maintenance.



Main advantages

- **Comprehensive Healthcare Solution**: adopted for its versatile modules and cloud-based integration.
- Extensive Support and Monitoring: Robust customer support contributing to system stability. Efficient note-writing, quick order placement, and powerful clinical tools
- User-Friendly Interface and Integration
- Strong market presence with adoption by top-ranked hospitals and medical schools.



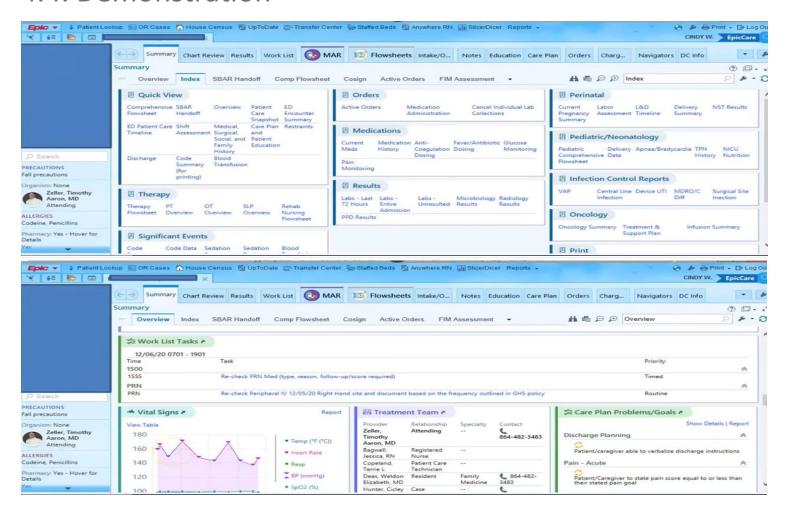








4.4. Demonstration





Source: https://www.emrfinder.com/epic-ehr-software/











SociALL

4.5. Ideal use case

- ✓ Suited for large and complex healthcare organizations, particularly those with diverse specialties and intricate healthcare management needs.
- ✓ Well-adapted for institutions seeking an integrated approach to patient care, data management, and operational efficiency.
- ✓ Healthcare professionals, including physicians, nurses, and administrative staff, who operate in large medical facilities and require a versatile system with extensive functionalities would benefit significantly from Epic.
- ✓ The solution's **scalability and adaptability** make it particularly effective for organizations with the resources to undergo thorough training and implementation processes.











4.6 Customers



Epic Software Customers by Industry

The three top industries that use Epic Software for Electronic Health Records (EHR) are Healthcare, Primary Care, Orthopedics.

Epic Software Customers by Employee Size

The majority of Epic Software's customers for the electronic-health-records-ehr category fall in the company size of 1,000 - 4,999 employees (620 companies), 100 - 249 employees (475 companies), 10,000+ employees (384 companies).

Epic Software Customers by Geography

The top three geographies of Epic Software for electronic-health-records-ehr are the United States with 2 706 (91.36%), Canada with 77(2.60%), United Kingdom with 58(1.96%) customers respectively.













- 1. Overview
- 2. Features and functionalities
- 3. Pricing and evaluation
- 4. Demonstration
- 5. Ideal use case
- 6. Customers













5.1. Overview

Overview of the tool

- It is a trailblazer in cloud-based healthcare solutions with a user base of nearly 115,000 healthcare providers, athenahealth specializes in practice management, EHR systems, and care coordination.
- It seamlessly combines practice management, electronic health record (EHR) systems, and care coordination.
- The platform emphasizes data aggregation, analytics, and reporting for efficient population health management. It also promotes patient engagement through accessible care plans, team notifications, and a mobile app.



Vendor: athenahealth Inc.



Availability: Web-app and mobile app



Date of creation: 1997



Typical users: **Small to medium-sized healthcare organizations, healthcare workers**



Project languages available: ENG



Privacy policy: complies with applicable legislation











SociALL

5.2. Features and functionalities



Key

features

- ✓ Integrated Suite (athenaOne): combines practice management, EHR systems, and care coordination.
- ✓ Cloud-Based EHR (athenaClinicals): facilitating care coordination and population health management.
- ✓ Electronic Medical Billing (athenaCollector): Cloud-based electronic medical billing system for financial workflows.
- ✓ Patient Engagement (athenaCommunicator): Scheduling system for communication and appointment management.



Additional features

- athenahealth Marketplace: apps for chronic care management, telehealth, surveys, and quality management. Compatibility with healthcare solutions.
- More Disruption Please (MDP)
 Program provides mentorship, access to experts, exposure to athenahealth customers, and investment capital



Integrations

Mobile App for efficient point-of-care interactions, as well as allowing clinicians to access and update patient records on the go, enhancing mobility.



Interface

- ✓ **Intuitive Navigation** in a user-friendly interface.
- Mobile Accessibility with efficient access and utilization of core functionalities on both desktop and mobile platforms.











SociALL

5.3. Pricing and evaluation



Pricing

- ✓ Tailored pricing plans based on the unique needs of healthcare organizations.
- ✓ No free trial or plan is available; third-party software integrations may involve additional fees.



User ratings

Receives positive feedback for its reporting capabilities and commitment to improving practice performance.



Main shortcomings

- Perceived High Costs: Budget constraints could impact accessibility for certain healthcare providers.
- Learning Curve: Training programs are available, but proficiency depends on individual familiarity.
- Dependency on Internet Connectivity: Being a cloud-based solution, athenahealth depends on consistent internet connectivity.



Main advantages

- ✓ Integrated Suite: Seamless integration of practice management, EHR systems, and care coordination.
- ✓ User-Friendly Interface: Prioritizes simplicity to enhance the overall user experience
- ✓ Mobile Accessibility for point-of-care interactions.
- ✓ Patient Engagement Tools like the athenaCommunicator.
- Actionable Analytics: Comprehensive data aggregation, analytics, and reporting tools.



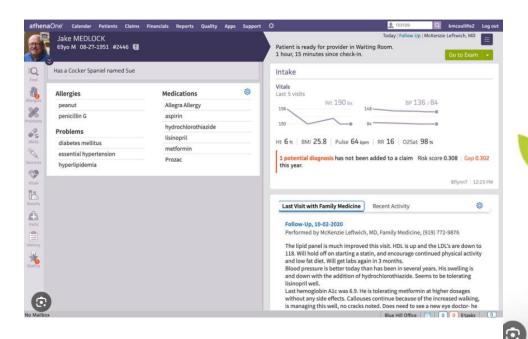








5.4. Demonstration





Source:

https://www.athenahealth.com/solutions/athenaone











SociALL



5.5. Ideal use case

- ✓ Suited for **small to medium-sized healthcare organizations**, including physician practices and hospitals.
- ✓ The solution is well-adapted for healthcare providers looking for a comprehensive and integrated platform that combines practice management, electronic health record (EHR) systems, and care coordination.
- ✓ Its user-friendly interface and mobile accessibility make it particularly suitable for healthcare workers who require efficient point-of-care interactions.
- ✓ Organizations **seeking innovation** and the ability to integrate complementary solutions through the athenahealth Marketplace can find value in the platform.











5. athenahealth

SociALL

5.6. Customers

AthenaHealth Customers by Industry

The three top industries that use AthenaHealth for Electronic Health Records (EHR) are Primary Care, Pediatrics, Family Medicine

AthenaHealth Customers by Employee Size

The majority of AthenaHealth's customers for the electronic-health-records-ehr category fall in the company size of 0 - 9 employees (2 981 companies), 20 - 49 employees (1 285 companies), 10 - 19 employees (885 companies).

AthenaHealth Customers by Geography

The top three geographies of AthenaHealth for electronic-health-records-ehr are the United States with 6 610 (98.55%), India with 28(0.42%), Germany with 16(0.24%) customers respectively.















	Cygnus	Cerner Millennium	Epic EMR	AthenaHealth
Mobile APP	No	Yes	Yes	Yes
Free version	No	No	No	No
Used in Europe	Yes	Yes	Yes	Yes
Customizability / Flexibility	Moderate	Moderate	Very flexible	Very flexible
Server infrastructure	Cloud based	Cloud based	Cloud based	Cloud based
Integrations with third-party software	Difficult	Possible	Possible	Possible - fee















	Cygnus	Cerner Millennium	Epic EMR	AthenaHealth
Administrative patient management features (ex: invoicing, appointments, contact info,)	Yes	Yes	Yes	Yes
Medical care management features (ex: treatment, diagnosis, health data)	Yes	Yes	Yes	Yes
Practice management and decisional features (ex: financial and decisional module, analytics, reporting,)	Yes	Yes	Yes	Yes
Telemedicine features (ex: secured videoconferencing; tests result management; remote medicine,)	No	Yes	Yes	Yes
Home care features (ex: distances calculator / meals planner,)	Yes	No	Yes	Yes











Thank you for your participation and ideas!











