School: ATEC – Technology Essentials
Course: Technology in Treatment Management (Module 5)
Faculty: Artemis Emslie, CEO & President, CadenceRx
Raja Sundaram, CEO, Plethy, Inc.

Summary

The course "Technology in Treatment Management," presented by Artemis Emslie of CadenceRx and Raja Sundaram of Plethy, delves into the evolving role of technology in enhancing patient care, particularly in the workers' compensation sector. The discussion centers around the integration of advanced technological solutions, such as data-driven insights, IoT (Internet of Things), and AI, to improve treatment management and patient outcomes.

Artemis Emslie begins by highlighting her extensive experience in the pharmacy benefits management (PBM) industry, emphasizing the importance of patient-centric approaches. She discusses how technology can streamline processes and ensure that patients receive the appropriate medication for their injuries. Emslie also identifies key challenges in the current healthcare system, such as fragmented care and the lack of real-time data integration. She stresses the need for a more interconnected approach, where technology can bridge gaps between various healthcare providers, ensuring that patients' medication profiles are accurately managed and that their care is coordinated across different platforms.

Raja Sundaram continues by exploring the critical role of data in healthcare. He explains how the transition to hybrid care models, which combine in-person and at-home treatment, necessitates the use of real-time data to monitor patient progress. Sundaram emphasizes the importance of engaging patients in their own care, using technology to provide personalized treatment plans and timely interventions. He introduces the concepts of IoT and Internet of Behavior (IoB) as key components in gathering and analyzing patient data, which can lead to better outcomes and reduced healthcare costs.

The course also addresses the future of AI in healthcare, where both instructors discuss the potential of AI to revolutionize treatment management. They outline the current state of AI, which primarily operates within the scope of artificial narrow intelligence, capable of performing specific tasks such as diagnostic imaging. Sundaram and Emslie suggest that as AI evolves towards general intelligence, it could significantly enhance decision-making processes in healthcare, offering more accurate and timely diagnoses and treatments.

A significant portion of the discussion is dedicated to overcoming barriers in treatment management, such as the lack of access to care and the disjointed transition of patients between different stages of their treatment. The instructors advocate for the use of technology to automate workflows, reduce manual processes, and ensure that patients receive consistent, high-quality care throughout their recovery journey.

Overall, the course underscores the transformative potential of technology in treatment management, particularly in the context of workers' compensation. By leveraging data, AI, and IoT, healthcare providers can create more efficient, patient-centered care models that not only improve outcomes but also reduce costs and streamline the overall treatment process. The course provides a comprehensive overview of the current challenges and future opportunities in the integration of technology in healthcare, offering valuable insights for professionals in the field.

Learning Objectives

1. Understand the role of data in healthcare, specifically in the context of treatment management and how it influences decision-making processes.
2. Explore the impact of technology, including IoT (Internet of Things) and IoB (Internet of Behavior), on patient engagement and recovery.
3. Identify the barriers to effective treatment management and how technology can alleviate these challenges.
4. Learn how to implement a patient-centric approach using technology to enhance care coordination and improve patient outcomes.
5. Gain insights into the future trends of AI in healthcare and how they can transform treatment management and patient care.

Primary Takeaways

1. Leveraging data through technology enables more informed and timely decision-making, which is crucial for improving patient outcomes and reducing costs.
2. Implementing a patient-centric system that integrates data across various platforms ensures better care coordination and more personalized treatment plans.
3. Identifying and addressing barriers such as fragmented care and lack of real-time data through technological solutions can significantly improve the treatment process.
4. Real-time telemetry and patient data collection are vital for monitoring patient progress and enabling timely interventions, which is key to successful treatment management.

5. The evolution of AI, from narrow intelligence to potential general intelligence, offers promising advancements in healthcare, particularly in enhancing diagnosis, treatment, and patient engagement.

Course Outline

1) Introduction to Technology in Treatment Management
   a) Overview of Course Objectives
   b) Importance of Data in Healthcare

2) The Role of Technology in Enhancing Treatment
   a) IoT and IoB in Healthcare
      i) Definition and Application of IoT in Treatment
      ii) Understanding Internet of Behavior (IoB) and its Impact on Patient Engagement
   b) Patient-Centric Approach to Treatment
      i) Building Patient-Centric Systems with Technology
      ii) Leveraging Data for Personalized Care and Improved Outcomes

3) Addressing Barriers in Treatment Management
   a) Identifying Common Barriers
      i) Fragmented Care and Lack of Access
      ii) Challenges in Data Integration and Real-Time Monitoring
   b) Technological Solutions to Overcome Barriers
      i) Automating Workflows and Enhancing Interoperability
      ii) Implementing Real-Time Data Collection and Analysis

4) The Future of AI in Treatment Management
   a) Current State of AI in Healthcare
      i) Artificial Narrow Intelligence and Its Applications
   b) Future Trends in AI
      i) Potential of General and Super Intelligence in Transforming Healthcare
      ii) Ethical Considerations and Challenges Ahead

NOTE: Artificial Intelligence was used in the creation of this document.