eahp BOOST
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HUMANIZING THE HI-TECH PHARMACY

1st EDITION

SESSIONS AND WORKSHOPS ON:
AUTOMATION IN RECONSTITUTION AND PRODUCTION OF MEDICINES
BEDSIDE DISPENSING SERVICES AND PHARMACEUTICAL CARE

Overview: Bedside dispensing services and pharmaceutical care
Speaker: Benedict Morath

Abstract

With the publication of the large-language model ChatGPT 3.5 in November 2022, the focus of the general public has shifted to the application of artificial intelligence (AI) in various areas of life, including medicine and science. An ever-growing number of studies describe possible applications in clinical settings and the number of published models is constantly increasing. Currently, the integration of automated unit-dose production systems enables the delivery of tailored medication regimens directly at the bedside. Combined with the utilization of artificial Intelligence (AI) in drug information management and pharmaceutical care, these new technologies have a large potential to transform the present pharmaceutical working environment. Specialized algorithms could further empower clinical decision support systems and streamline medication management processes, identify potential drug interactions, and personalize treatment plans to meet the unique needs of each patient. However, it is currently still unclear to what extent these pilot studies can be applied in practice in the near future and how the technological barriers to implementation will be overcome. In this presentation, the technical background, current data, differences and functionalities of machine learning algorithms and large language models in the AI field will be presented and put in relation to hospital pharmacy practice. Thereby, potential facilitating pathways to the future fusion of human expertise and AI technologies shall be explored to enhance patient safety and optimize therapeutic outcomes.

Learning objectives
After the session, the participant should be able to:
- The current performance and limitations of AI technologies applied hospital pharmacy settings
- The functionality and underlying mechanism of Large-Language models
- Outline of potential use cases and future developments

Educational need addressed
The field of AI is growing fast and affects the professional and everyday life. Hospital pharmacists should actively participate in the use of AI applications and help to develop use case in the best interest of patients and their needs.

Keywords
Artificial intelligence, Large-language models, Automation, pharmaceutical care