Theme	Definition	# of Studies	References
Data Manipulation	The use of GenAI to retrieve, organize, and analyze structured or unstructured healthcare data, including identifying or extracting specific items or elements within datasets.	24	Abu-Ashour 2024, Alkhalaf 2024, Chiang 2024, Cho 2024, Elmarakeby 2023, Fu 2024, Gabriel 2024, Ge 2024, Hu 2024, Iscoe 2024, Lee 2024, Maciejewski 2024, Morales-Sanchez 2024, Musacchio 2024, Pathak 2023, Roy 2024, Seng 2024, Shapiro 2024, Sivarajkumar 2024, Sushil 2024, Woo 2024, Wu 2024, Zeinali 2024, Zhang 2024
Patient Communication	The use of GenAI to support patient interactions, including generating patient education materials, answering patient queries, and enhancing accessibility in communication.	9	Doshi 2024, Garcia 2024, Liu 2024, Reynolds 2024, Scott 2024, Small 2024, Soroudi 2024, Yan 2024, Zaretsky 2024
Clinical Decision Making	Leveraging GenAI to assist healthcare providers in making clinical decisions, including analyzing data, suggesting possible diagnoses, and recommending treatment options.	8	Afshar 2024, Bridges 2024, Fraser 2023, Lin 2024, Rosen 2024, Seth 2024, vanNuland 2024, Williams 2024
Clinical Prediction	The application of GenAI to forecast clinical outcomes, disease progression, or patient risks based on analysis of historical and current patient data.	8	Acharya 2024, Beaulieu-Jones 2023, Chung 2024, Gandomi 2024, Glicksberg 2024, Gu 2024, Hao 2024, Jiang 2023
Summarization	The use of GenAI to condense complex medical data, such as patient histories and medical reports, into concise and comprehensible summaries.	4	Bi 2024, Kaufmann 2024, Seto 2024, VanVeen 2024
Other	Applications of GenAI in healthcare that do not fit into the above-defined categories.	2	Tan 2024, Xie 2024