Utilization of medical big data for cardiovascular healthcare

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The evolution and infusion of "big data" in our abilities to track personal health information across multiple registries and administrative databases longitudinally has fostered contemporary health services and outcomes-based research worldwide. By discovering associations and understanding patterns and trends within the data, big data analytics has the potential to improve care, save lives and lower costs. Thus, big data analytics applications in healthcare take advantage of the explosion in data to extract insights for making better informed decisions, and as a research category. By digitizing, combining and effectively using big data, healthcare organizations ranging from single-physician offices and multi-provider groups to large hospital networks and accountable care organizations stand to realize significant benefits. Potential benefits include detecting diseases at earlier stages when they can be treated more easily and effectively; managing specific individual and population health and detecting health care fraud more quickly and efficiently. Scientists highlighted several important topics related with medical health care utilization. Clinical operation, research and development, public health, evidence-based medicine, genomic analytics, pre-adjudication fraud analysis, device/remote monitoring, and patient profile analytics are the major fields benefited by medical big data analysis. In this lecture, example and experienced of big data utilization for cardiovascular health care will be provided.