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*Editorial*

# Technology in Oncology

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Technology has revolutionised many fields, including medicine, and oncology is no exception. Advances in technology have played a significant role in improving cancer diagnosis, treatment and management. In this editorial, we will explore the latest technology trends in oncology and their potential impact on cancer care.

One of the most significant technological advancements in oncology is the development of precision medicine. Precision medicine involves using a patient's genetic information to personalise their cancer treatment. This approach allows clinicians to select treatments that are most likely to be effective and avoid those that are unlikely to work, thus reducing side effects and improving patient outcomes. Precision medicine has already shown promising results in the treatment of various cancers, such as lung cancer, breast cancer and melanoma.[1]

Another technological trend in oncology is the use of artificial intelligence (AI) in cancer diagnosis and treatment. There are few software being developed by oncology specific platforms like **ONCOFIX** which are trying to build a screening model for early detection of cancer based on questionnaires. AI can help identify patterns in patient data that are not apparent to the human eye, enabling earlier and more accurate cancer detection. AI can also assist in developing personalised treatment plans and predicting patient outcomes based on data from similar cases. Several AI tools are already available for oncology use, such as IBM Watson for Oncology and PathAI.[2]

In addition, telemedicine has become increasingly popular in cancer care. Telemedicine allows patients to receive remote consultations with specialists, reducing the need for travel and making cancer care more accessible for patients who live in rural or remote areas. Telemedicine can also improve patient access to clinical trials, which are often only available at major cancer centres.[3]

Other technological advancements in oncology include the use of liquid biopsy, which involves analysing cancer cells in a patient's blood to monitor tumour progression and detect cancer recurrence. In addition, 3D printing technology is used to create personalised prostheses, implants and surgical tools, improving the accuracy and safety of cancer surgeries.[4]

Although these technological advancements hold significant promise for improving cancer care, there are also challenges that need to be addressed. For example, the implementation of precision medicine requires significant investments in technology and infrastructure and many health-care providers may not have the resources to adopt these technologies. In addition, there are concerns about the accuracy and reliability of AI tools, and their potential to reinforce biases if not carefully designed and tested.

In conclusion, technology has transformed oncology in recent years, offering new ways to diagnose, treat and manage cancer. Precision medicine, AI, telemedicine, liquid biopsy, and 3D

printing are just a few of the technological advancements that have the potential to improve cancer care. However, it is essential to ensure that these technologies are accessible to all patients and that they are designed and tested with care to avoid reinforcing biases and to ensure their accuracy and reliability.

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