Biosimilar medicine

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Context: World Health Organization (WHO) had for the first time approved a "biosimilar" medicine to make breast cancer treatment affordable to women globally.

- Biosimilar drug— one derived from living sources rather than chemicals
- Biosimilars are manufactured by the company after the patent on the original product has expired
- The Trastuzumab drug has shown "high efficacy" in curing early stage breast cancer and in some cases more advanced forms of the disease
- Annual cost of the original drug is an average (of) \$20,000, a price that puts it out of reach of many women and healthcare systems in most countries. However the biosimilar version of trastuzumab is generally 65% cheaper than the original.
- A few biosimilars of trastuzumab have come to the market but none were prequalified by WHO. WHO prequalification assures the countries of 'quality health products'

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- Generic drugs are copies of brand-name drugs that have exactly the same dosage, intended use, effects, side effects, route of administration, risks, safety, and strength as the original drug
- Unlike generic drugs (commonly referred to as 'small molecules' in pharma), biological molecules are inherently complex and are sensitive to changes in development and manufacturing process.
- Biosimilars have higher operating margin when compared to generics but lower than other patented drugs