

Drugs college essay



The past century saw the emergence of many important kinds of drugs that drastically changed the efficiency of medical care, making many previously incurable diseases submit to the power of science. The invention of new drugs answered the hopes of a vast number of people at the onset of the century that technology and industrial progress would ultimately improve living conditions for all. The positive effect of drug development is hard to overrate, although its negative consequences need not be underestimated as well. Of all the drug classes that emerged in the twentieth century, perhaps the most important was the group of antibiotic drugs. These drugs were a powerful remedy of antimicrobial, or anti-infective, therapy and were instrumental in combating infectious diseases that had hitherto plundered mankind. The invention of antibiotics was based on the work of Alexander Fleming and Howard Florey, who gave impetus to the discovery of penicillin - the first antibiotic drug.

Starting with the release of sulfacetamide in 1939, new kinds of antibiotics entered the pharmaceutical market almost every year. The appearance of antibiotic drugs allowed humanity to conquer such diseases as tuberculosis, hepatitis, syphilis, small-pox, plague and others. Before antibiotics, the treatment of infectious diseases was restricted to the isolation of patients and a healthy diet including chicken soup. The diseases that earlier wiped out populations of whole areas were no longer major factors in death rates. Even so, the use and misuse of antibiotics leads to some negative side effects. Staying in the body for prolonged time periods, antibiotics foster bacteria resistance to these drugs.

In the area of agricultural production that earlier used small doses of antibiotics to boost animal growth professionals reconsider this practice. They are afraid the cattle may develop a resistance against certain bacteria that are also harmful to humans. The 20th century also saw the invention of insulin as an industrial drug. The appearance of insulin was a breakthrough in the treatment of patients with diabetes who beforehand had had virtually no cure.

Now, although they have to depend on a regular intake of this drug, they are viable members of society and can live for many years. However, the need to take insulin regularly puts a heavy financial burden on individuals in low-income nations in case their needs are not covered by the medical insurance. Another important invention was anti-depressant drugs. They, too, evoke controversial feelings in society. On the one hand, they are helping people fighting with depression that is known to have serious consequences such as serious mental disorder or suicide. On the other hand, anti-depressants are often touted by pharmaceutical companies to the uninformed public as a way to improve the 'biochemical imbalance' in one's brain.

On the other hand, the brain of the patient can grow too accustomed to anti-depressants, to a point when a person develops an "antidepressant discontinuation syndrome" when drug intake is stopped. This causes a new problem to the person who is hopefully just rid of the first one - depression. Insomnia, sexual dysfunction, and nausea are side effects for some anti-depressants, and Prozac has been shown to trigger muscle contractions (Groenendijk, 2004). These side effects can persist for years, in which case

these drugs destroy rather than improve a person's health. In the past decades, media coverage has included " antidepressant influenced home, school- and workplace shooters/killers", which suggests that intake of these drugs can lead to anti-social behaviour, adversely impacting the surrounding people. Another class of drugs that is known to trigger adverse reactions in the body in addition to its positive effect was the anti- psychotic medication that became popular in the 1960s.

These drugs are important in the treatment of schizophrenia. However, patients who take them for a long time are at risk for developing tardive dyskinesia, " a typically permanent neurological disorder similar to Parkinson's disease involving involuntary movements" (Grohol, 2005). Thus, the invention of new drugs is most certainly a positive development in most cases. However, it takes time to explore the side effects of the new medications. For this reason the research and production of new pharmaceuticals have been conducted with great care.