

## Medicines on line and health risks. Real cases analysis

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At present, buying medicines on the net represents a real issue relating to the public health. Ingestion of adulterated, contaminated, undeclared or banned drugs (taken in without a medical supervision) constitutes a concrete risk for the patient, because of the possible manifestation of various toxic adverse effects. This issue's effect in the emergency setting is most likely underrated: a physician can hardly identify such intoxications, especially if the patient does not admit to have bought a medicine on the internet, containing substances not stated in its chemical composition and unidentifiable by common toxicological tests. Thus, poison centers' activity become capital to: recognise a clinical case and address the physician to the diagnosis; integrate the investigations with second-level-laboratory analysis; underline emerging problems, needing a branching alert in defense of public health. The result of buying medicines on the net can be very serious sometimes, including the patient's death. The clinical cases managed by PPC – CNIT prove the patients' tendency to buy online, above all, appetite suppressants (containing banned drugs as sibutramine or 2,4-dinitrophenol), doping agents (yohimbine, follistatin, anabolic steroids), drugs for erectile disfunctions (sildenafil and similar substances). Emerging issues also concern online trade of drugs used in the so-called alternative medicines, not only of ayurvedic drugs (well known for problems related to heavy metal contamination) though, but also of those used in the Traditional Chinese Medicine, made from plant extracts and mushrooms, for which laboratory investigations may be even more complex. Regulatory actions for parapharmaceuticals and dietary supplements' trade is desirable, especially if the products are purchased online: they can represent a significant risk, for example due to adulteration with active pharmaceutical ingredients, and they are not put under the same control of medicines.