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# Phage therapy: compassionate use in France in 2017

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## Abstract

Phages: an old drug to fight emergent resistant infections. In the last decade this statement has been published many times. Although scientist working on phages are convinced that phage therapy is a very promising alternative to antibiotics, no phage drug is yet approved in western countries.

We propose to present the current regulatory status of therapeutic phages in France, and the recent advances that allowed patients undergoing therapeutic failure to benefit from experimental therapeutic phages in Lyon, at the beginning of 2017.

Two patients with severe bone and joint infections due to resistant pathogens were admitted to the "Hospices Civils de Lyon" (HCL) in France. As conventional drugs were not efficient, and because the patients were at risk to lose their motor skills and mobility, the treating physicians, under the supervision of the French National Agency for Medicines and Health Products Safety (ANSM), decided to administrate therapeutic phages. Based on a preliminary diagnostic, a phagogram, active phages were selected and produced by the French Company Pherecydes Pharma. After a thorough examination of the therapeutic phages characteristics and of the data of quality control tests by experts of the regulatory agency and pharmacists of the HCL, the phages were administered locally.

No side effect related to the treatment were reported, and the infection symptoms vanished. These promising clinical results pave the way to the new phage therapy, including through other administration routes than local administration.

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