specificity for the recognition of appropriate complementary receptors and rapid destruction of the pathogen. The appropriateness of the use of bacteriophages as a means of treatment is less negative impact on the human body in contrast to antibiotics.

Conclusion. In modern conditions, the fight against bacteria that cause infectious diseases is "the main challenge of time." The problem of antimicrobial resistance is considered globally, and the world scientific community is actively looking for ways to solve it. Therefore, the production of drugs based on bacteriophages is a very important stage in the development of antimicrobial drugs. The production of bacteriophages is a cheaper and more effective way to fight infectious diseases, as opposed to the production and improvement of antibiotics.

PROSPECTS FOR THE USE OF YEAST OF THE GENUS *BRETTANOMYCES* IN BREWING

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Introduction. Today, the use of non-standard types of yeast, which include *Brettanomyces*, is becoming more and more popular in the food industry. The best known uses for *Brettanomyces* are the spontaneously fermentable beers of lambic and gueuze. This beer is characterized by a long fermentation time (up to several years) and a rich, complex taste with specific tones associated with a rich bacterial and fungal microflora. The volatile phenolic compounds in these beers, which are responsible for the main aroma profiles, are associated with *Brettanomyces*.

Aim. To analyze the history of origin and characteristics of the yeast of the genus *Brettanomyces*, their use in brewing.

Materials and methods. We used the method of descriptive research: data from scientific literature were analyzed.

Results and discussion. *Brettanomyces* yeast was first described in 1904 by Niels Hjelte Claussen (Carlsberg Brewery). He isolated them from secondary fermentation beer and determined that they were responsible for the development of the characteristic flavors of English ales. The potential of *Brettanomeces* as a yeast in industrial fermentation processes is increasingly recognized. They are tolerant to low pH and have a highly efficient metabolism.

In the modern classification, the yeast of the genus *Brettanomyces* (family *Saccharomycetaceae*) is non-spore-forming. *Brettanomyces* are capable of fermenting a wide variety of carbon sources, but at different rates. For example, it was found that *Brettanomyces* are capable of fermenting maltose and fructose, although at a lower rate than glucose. Fermentation of sucrose can also indicate the high competitiveness of this yeast.

Brettanomyces, unlike Saccharomyces, are capable of fermenting complex sugars such as cellobiose and dextrins. Most strains of *Brettanomyces* are highly resistant to ethanol, which is critical for survival in a fermentation environment. In some beers, such as Belgian-style lambic or American ale coolship, the presence of *Brettanomyces* is essential for the aroma of the beverage. Lambic-style beers are characterized by a long fermentation time (which can be up to several years) and a rich, complex flavor with specific tones associated with a rich bacterial and fungal microflora. There are various terms for describing the aromatics of *Brettanomyces*, including clove, spice, murine, smoky, phenolic, metallic, biscuit, apple, floral, tropical fruit, citrus, but it is more convenient to combine them under the term “*Brettanomyces* aromatics”.

Brettanomyces starter culture can be cultured using the same propagation methods as ale yeast, but each stage of growth takes longer. The introduction and distribution of *Brettanomyces* in the beer bed will take longer than for most yeast because *Brettanomyces* cells are smaller and do not flocculate well.

Conclusions. Based on the analysis of scientific literature data, it was revealed that the potential for the use of *Brettanomyces* yeast in brewing is very high and often surpasses *S. cerevisiae*. Especially in specific conditions - with low nitrogen nutrition, low pH and high ethanol levels, as well as in conditions of limited carbohydrates and oxygen.

ADVANTAGES OF GELS USING IN DENTAL PRACTICE

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Introduction. In modern dental practice, the issue of creating new effective drugs for the treatment of periodontal diseases, stopping of dental bleeding, teeth whitening and local impairment of the maxillofacial area remains open. However, not only the selection of the correct API (active pharmaceutical ingredients) affects the outcome of the treatment of the above mentioned pathologies, but also the selection of the correct dosage form.

Materials and methods. Literature review and in-depth interview. Study of gels most commonly used by practicing dentists and consideration of the benefits of gels over the other dosage forms.

Results and discussion. The gel is a soft dosage form for topical application, which is a mono-, two- or multiphase dispersion system with a liquid dispersed medium, the rheological properties of which are stipulated by the presence of gelling agents in relatively small concentrations.

Dental associates actively use Metrogil denta (an antimicrobial drug for the treatment and prevention of infectious-inflammatory diseases of the oral cavity), Holisal (a drug shows anti-inflammatory, analgesic and antiseptic effects), in order to treat and prevent inflammatory diseases of the oral cavity Paragel is used. To stop dental bleeding, hemostatic gels based on iron sulfate, aluminum sulfate and aluminium oxide are used. The representatives belonging to this group are Hemalat Forte, Alumogel, Alumogel Forte, Viscostat. For the purpose of local anesthesia, Jen-Relif is used - an application gel anesthetic based on benzocaine Gels are actively used both during teeth whitening and as whitener itself, and as a protective coating for ash during this process. The representatives belonging to this group are Arde Lumine, Blich Smile Automix, Opalescens, Peroxidam. Also, gels took their place in the pediatric practice of the dental profile. Dentol Baby, Calgel, Camistad Baby, Dentinale Nature are used when cutting teeth in the youngest patients.

Gels at the same level with varnish are the main dosage forms for the treatment of dental hyperesthesia.

The advantages of gels as a dosage form in dental practice include:

• prolongation of the action of API (relatively slow salivation allows maintaining the optimal concentration of the active agent);

• closer contact with the surface of teeth facilitates prolonged penetration of active substances into them;

• convenience in application;

• gels have the ability to linger on teeth;