Keywords: Viral infections; Herpes simplex virus (HSV); Human

o en require lifelong use. Public health measures, including sanitation, vector control, and education, remain crucial in limiting the spread of viral infections, particularly in resource-limited settings [7].

Despite signi cant progress, the global burden of viral infections remains substantial. Emerging viruses, such as Zika and SARS-CoV-2, have demonstrated humanity's vulnerability to novel pathogens, necessitating robust surveillance systems and rapid response capabilities. As our understanding of viruses deepens, the integration of cutting-edge technologies such as CRISPR, nanotechnology, and arti cial intelligence promises to revolutionize the prevention, diagnosis, and treatment of viral diseases.

Common viral infections in dentistry

Herpes simplex virus (HSV) is one of the most common viral pathogens a ecting the oral cavity. HSV-1 is the primary strain involved in oral infections, although HSV-2 can also occasionally a ect the mouth.

is is typically seen in children and presents as painful blisters or

opportunities in medicine and public health. eir unique biological characteristics, including their ability to mutate, adapt, and co-evolve with hosts, make them both fascinating subjects of study and formidable adversaries in disease control. Advances in science and technology have empowered humanity to combat viral infections with unprecedented precision, from highly e ective vaccines to targeted antiviral therapies. However, these advancements also emphasize the need for equitable access and global cooperation, as no region is immune to the ripple e ects of viral outbreaks.

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