

Notification by the Disinfectants Commission of the German Association of Applied Hygiene (VAH)



## New efficacy spectrum “limited virucidal activity PLUS” – what is that?

In Germany, since 2004 disinfectants have been classified in terms of their virucidal activity/efficacy as follows:  
– limited virucidal activity and  
– virucidal activity [1].

The “limited virucidal activity” spectrum includes only enveloped viruses, while the “virucidal activity” range includes all viruses.

In terms of virucidal efficacy, limited virucidal activity constitutes the minimum requirement to be met by a disinfectant. Efficacy against enveloped viruses covers the most important viruses with higher pathogenic priority [2] such as e.g. HIV, HBV and HCV, as well as influenza viruses, respiratory syncytial virus (RSV) or Ebola virus (Fig. 1). This, so to say, represents the first efficacy level of virucidal disinfection. The most recent recommendation by the Commission for Hospital Hygiene and Infection Prevention (KRINKO) at the Robert Koch Institute (RKI) for hand hygiene in healthcare institutions introduces a new virucidal efficacy level for prophylactic hand disinfection: Limited virucidal activity PLUS. “In settings where there is a risk of transmission of enveloped viruses, hand disinfectants (HDM) with limited virucidal activity should be used; where there is a risk of transmission of non-enveloped viruses, products with limited virucidal activity Plus or virucidal HDMs should be used, depending on the virus species [Cat. IB]”. This new virucidal disinfection efficacy level 2 includes, in addition to activity against enveloped viruses, efficacy against noro-, adeno- and rotaviruses (see also Fig. 2). In epidemiological terms, these three non-enveloped viruses are the viral pathogens most commonly implicated in infections in inpatient and outpatient

medical establishments and in public institutions. One advantage of this extended efficacy spectrum is that the same disinfectants can be used for prophylactic disinfection throughout the entire year, thus obviating the need to switch to other products because of the seasonal changes occurring in the viral pathogens.

Efficacy level 3, representing the highest level of virucidal disinfection, includes virucidal processes covering all viruses (Fig. 3). Virucidal products should therefore be used e.g. for disinfection in outbreaks of hand, foot and mouth infections caused by enteroviruses. They are also effective against enterovirus D68, which in 2014 was responsible for the cases of acute flaccid paralysis in Norway and the Netherlands. Enterovirus 71 or polioviruses cause similar symptoms and call for virucidal disinfectants and processes.

Details of virucidal products for routine disinfection can be found on the List of Disinfectants Approved by the Association of Applied Hygiene (VAH List) or (when officially mandated) on the RKI List of Disinfectants. The VAH List features only products that meet the test requirements of the German Association for Control of Viral Diseases (DVV) and VAH as well as European standards, and which had undergone a conformity assessment procedure by independent experts of the VAH Disinfectants Commission. Information will be published in the near future on listing products with declared “limited virucidal activity PLUS”. The criteria to be met for inclusion on the list will be based on the updated notification by the RKI’s Virucidal Efficacy Working Group to be soon published.

These three efficacy levels are new with regard to virucidal activity. But the efficacy levels against bacteria also feature different spectrums of activity determined by the various bacterial properties: what is required in principle is bactericidal activity. Additionally, tuberculocidal, mycobactericidal and sporicidal efficacy spectrums can be tested and certified.

When selecting products for hand disinfection (HDM) it should be noted that in general for inactivation of non-enveloped viruses, products with high ethanol concentration or synergistic combinations with lower alcohol content and e.g. acids are effective. Products containing only propanols are not endowed with adequate virucidal activity because of their short exposure time. With the advent of the effica-

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**VAH List of Disinfections – Online:**

A license for the online version of the VAH List of Disinfectants is available from mhp Verlag. For more information see [www.mhp-verlag.de](http://www.mhp-verlag.de)

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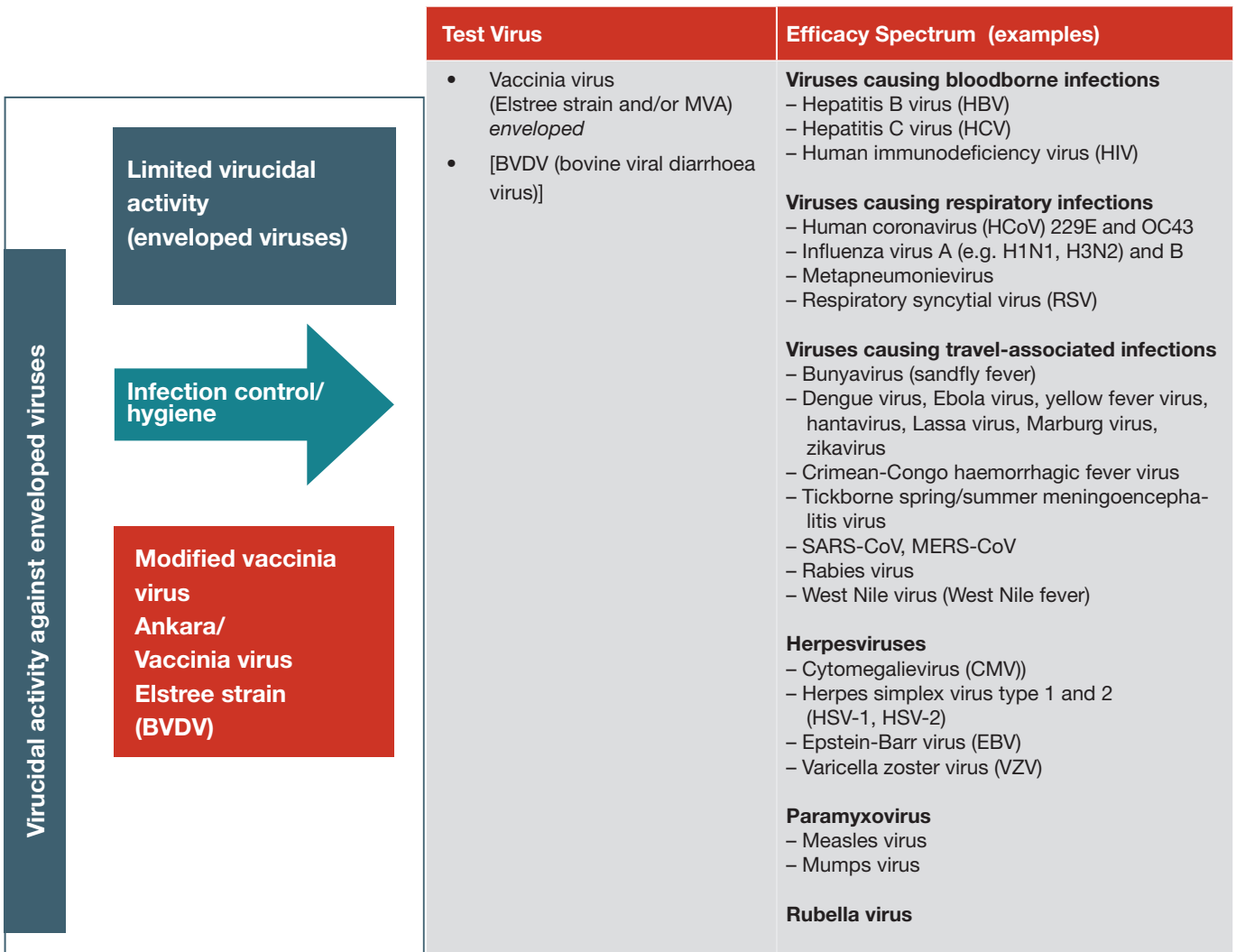


Figure 1: Efficacy level 1: limited virucidal activity

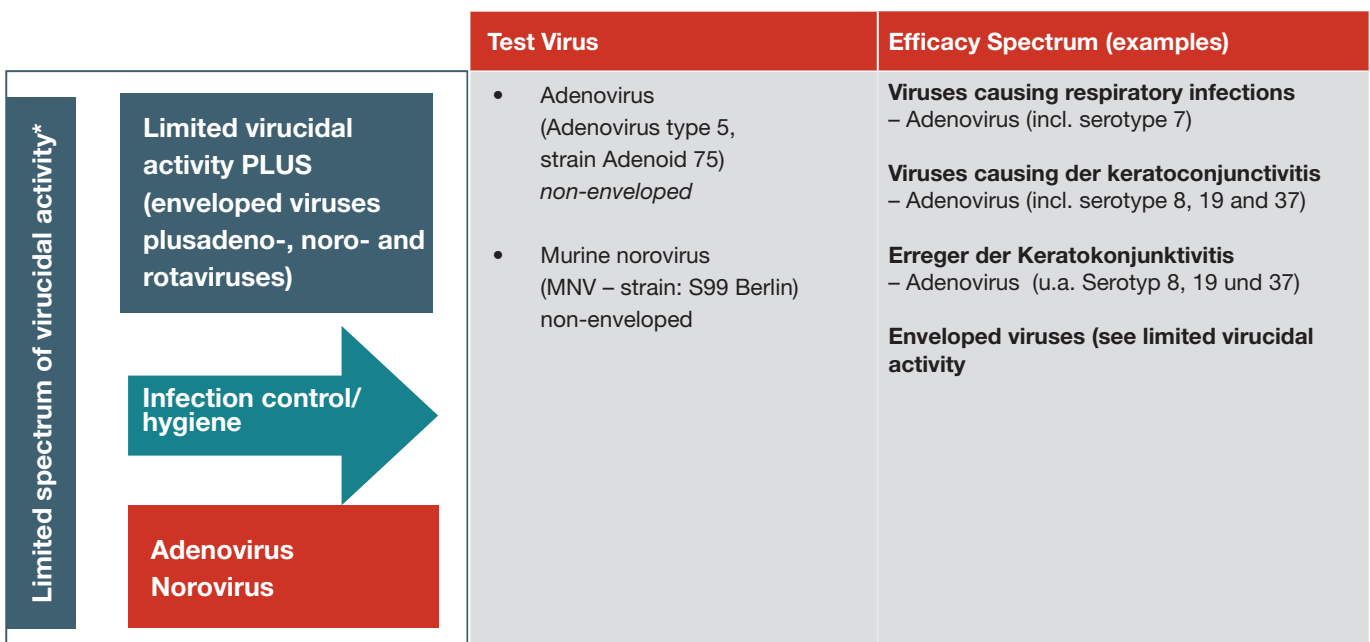


Figure 2: Efficacy level 2: limited virucidal activity PLUS.

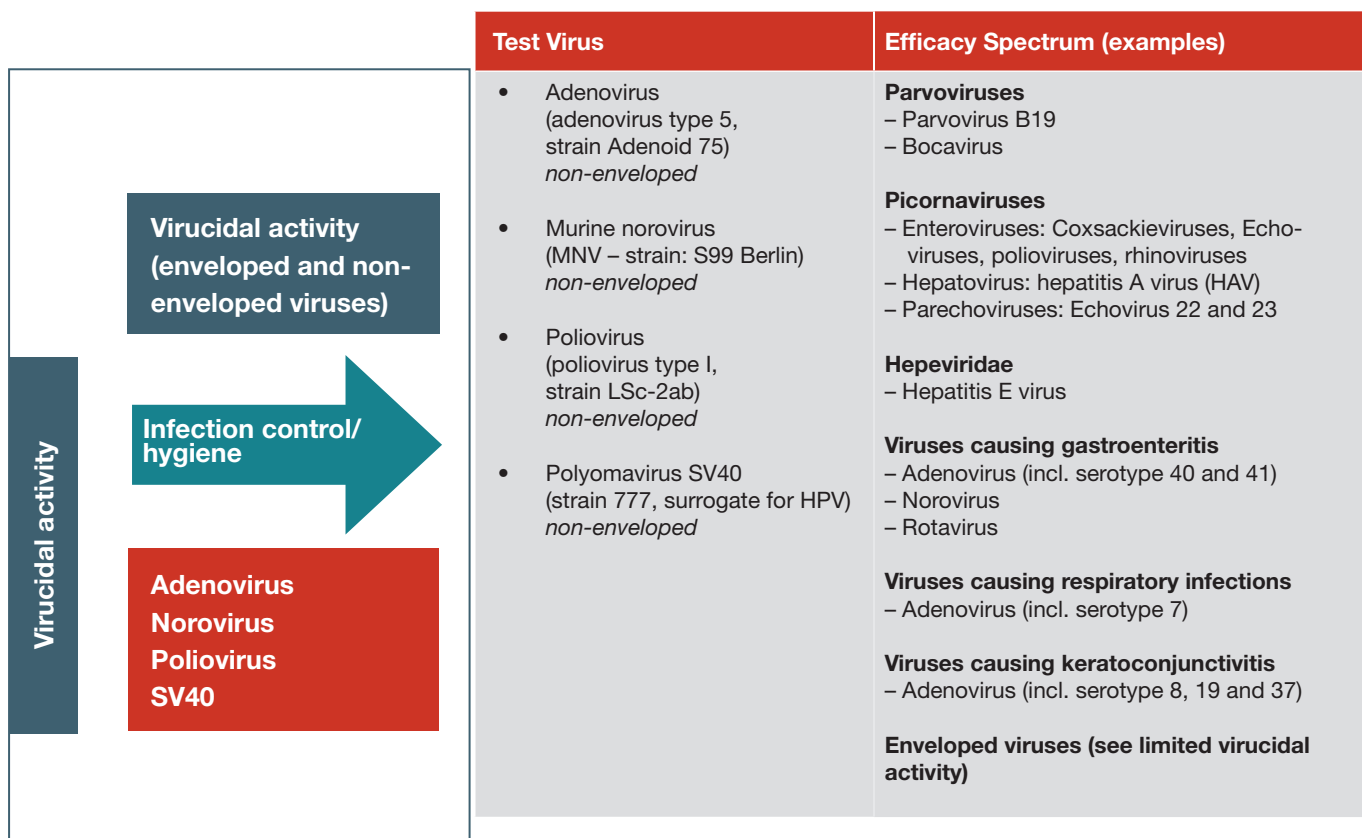


Figure 3: Efficacy level 3: virucidal activity.

cy level “limited virucidal activity PLUS” it will be possible to use more substances, in some cases in lower concentrations. In general, expert advice is needed to select the required spectrum of action and suitable disinfectant [4]. In addition to the lists mentioned above, users can consult the online VAH List which, thanks to an improved search system, they will find easier to navigate for an overview of viruses and efficacy spectrums. The three-level concept of virucidal activity permits well-target selection of products tailored to the risk presented by the respective viruses and will in future constitute the method of choice for selection of virucidal disinfection processes.

### References

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