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Risk of the Common Communion Cup

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Recent directives by the Catholic Church have revived interest in the subject of potential hazard of communicable diseases by the use of a common communion cup. This subject has not been reviewed recently in scientific literature.^{1,2} One can see by the list of references at the end of this review that no significant scientific investigation into the subject has taken place since 1966.

One must say, though, that bacterial research into the subject by Hobbs et al.³ was quite extensive. Their conclusions included the following:

1. The number of organisms deposited on the rim of the chalice varied from person to person but was usually quite small — less than 100.
2. Rotation of the cup was of no benefit. On the other hand, the use of a linen cloth (purificator) led to a diminution of about 90% of the bacterial count on the cup.

3. The disinfectant action of wine and silver was negligible.
4. They concluded that the common communion cup may serve as a means of transmitting infection; however, because of the small number of organisms involved, the risk is probably much smaller than that of contracting infection by other methods in any gathering of people.

It should be noted that none of the authors has looked into the transmissibility of viral infections via the common communion cup. In order to fully answer the question of risk of viral infections, one would have to do an extensive investigation. This investigation would be very expensive and might raise more questions than answers. It should be noted that most viral respiratory infections are contracted by inhalation of droplets rather than by oral contact. On the other hand, hepatitis B virus, herpes virus and a few other human pathogenic viruses may cause infection only after colonizing the person. In order for an infection to occur, several circumstances would have to be just right; i.e., for hepatitis B, both the source person and the recipient would need an open lesion in the oral cavity and the recipient, of course, would have to be susceptible. The epidemiologic circumstances would vary from virus to virus.

In the case of bacterial diseases, again there must be a perfect set of circumstances in order to produce disease. Traditionally, the general public worries about tuberculosis, syphilis and other venereal diseases that carry social stigmata. However, again, the chief concern should be colonizing an individual with potential pathogens such as group A *Streptococci*, *Streptococcus pneumoniae* and *Staphylococcus coagulase positive*. The diseases thus produced may not manifest themselves until sometime remote from the time of colonization and, again, only if the person's immune status was such to allow an infection to occur.

Suffice it to say the strongest argument for continuing the use of the common communion cup is the fact that there has never been a "point source" outbreak of a communicable disease directly related to the common communion cup. However, there have been no prospective studies done to prove or disprove this supposition.

In conclusion, the subject of the risk of acquiring infection through the common communion cup has been reviewed. There are only a few articles actually addressing themselves to the risk of the common communion cup in medical literature. These articles address themselves primarily to bacterial infections and have shown minimal risk when the communion cup is wiped with a purificator between recipients. Survival of virus particles and colonization studies have not been performed. A "point source" outbreak has never been identified implicating the common communion cup.

One would have to say that the potential for transmission of communicable diseases is certainly present through the use of a common communion cup; however, miraculously there are no reports in the medical literature of this occurring. The practice of intinction, in which wine is absorbed by individual wafers of bread, would bypass any risk and should be encouraged.

REFERENCES

1. Burrows W, Hemmens E. Survival of bacteria on the silver communion cup. *J Infect Dis* 72:180-190 1943.
2. Hobbs B, Knowlden J, White A. Experiments on the communion cup. *J Hyg Camb* 65:37-47 1967.
3. *Ibid.*

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