Microbial flora of oral cavity is rich & extremely diverse. This reflects abundant nutrients, moisture, hospitable temperature & availability of surfaces on which microbial populations can develop & a number of them cause infections that may be uncurable.¹

Previous reports confirmed that all members of the dental profession are at a risk at least three times greater than the general population of contacting infection and developing the carrier state.² Hepatitis B poses a high risk to dental staff with it's relatively low infective dose and stability outside body for lengthy periods.³,⁴ It is estimated that, India with a population of nearly one billion, harbors no less than 30 million chronic carriers of the hepatitis B virus (HBV).² Also, India is now among the leading countries for numbers of cases of AIDS; if the situation remains unchanged, the number of such cases could reach 50 million by 2025.² Tuberculosis remains another leading cause of death in India, claiming nearly 400,000 fatalities annually.²

Casts from contaminated dental impressions are known to carry a variety of pathogens and disinfection guidelines, such as those from the U.S. Centers for Disease Control & Prevention, caution that all patients be considered potentially infectious.²,⁶,⁷,⁸,⁹,¹⁰ Therefore, proper disinfection of contaminated dental impressions & other dental items leaving the immediate chair-side area remains the best approach to preventing the spread of infections in dentistry.¹ Among the currently recommended, disinfectants for this purpose are formaldehyde, glutaraldehyde, chlorine compounds, iodophores & phenolics in adequate concentrations.¹¹,¹²,¹³

Sixty randomly selected dental colleges across India were surveyed by e-mail to assess the current status of routine practices for treating the impressions prior to pouring of casts. The purpose of the study along with a short questionnaire was sent to a suitable academic at each college. The third and final wave of mailings generated a total of 57 responses; 3 of these were incomplete and were not included in the analysis.
Out of 54, chemical disinfectants were available in 36 departments (66.7%). Forty-one participants (75.9%) reported that they simply washed the impressions under running water between patients, while 13 participants (24%) reported that the impressions were disinfected.

As confirmed by this survey, most dental colleges still routinely wash the impressions in running water even though the available literature clearly shows such a practice to be inadequate from a microbiological perspective. Therefore, dental colleges in India should immediately review the situation and introduce corrective measures, including additional training of dental technicians & other dental auxiliary personnel as well as establish effective and routine disinfection practices.

References