As of now, there is no fixed framework for IP training programs in India. In countries like the United States of America, the method and fellowship periods for IP training are better streamlined. In our country, multiple fellowships and certificate courses are available for IP. Usually, these are 1–2-year courses, post-MD, and some are endorsed by individual universities and others by professional bodies such as the Indian Association for Bronchology. However, such opportunities are few, pushing aspiring interventional pulmonologists to look for such trainings out of the country, mostly to Southeast Asian countries. The domain of IP is not restricted to any degree or postgraduate pulmonology course in our country. However, there is heavy institutional bias to IP training in our country, wherein centers that have good volume of IP work mentor more students truly adapted to IP practice.

Should there be procedural competency or a fixed number of procedures or hours devoted to IP during practice which should be accredited annually, to qualify one to be called as an interventional pulmonologist? The exact legal and ethical values of using the suffix IP also need to be clarified. Medical professionals today are closely being watched by print and electronic media, and even the slightest deviation from standard protocols can have serious legal consequences.

The way forward to answering the issues that we have raised revolves around standardizing the training of IP in our country. The various courses being offered should be brought under a common umbrella, and the entry and exit examinations should be standardized. The basic core competency and the number of procedures to be done annually, to retain the title of IP, should be defined. Till such time, corrective measures may be taken, and professional societies should lay down norms regarding the basic procedures and number of such procedures to use and retain the title of IP. This becomes even more important, in procedures with high complication rates, such as transbronchial cryobiopsies.

Our country is opening up to advanced IP like never before. This is the right time to lay down guidelines for IP training and this is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.
OsiriX recently ceased to be an open-source software. OsiriX Lite, the complete demo version, is still free, but it has various functional limitations.

Horos™ (Horos Project, Geneva, Switzerland) is a free DICOM viewer for Mac OS X based on OsiriX 5.8, the latest open-source version of OsiriX. Like OsiriX, Horos can be used to perform three-dimensional (3D) reconstruction of computed tomography (CT) images. Recently, Horos has been used to analyze both 2D and 3D CT images.[3,4]

We applied Horos to virtual bronchoscopy. Horos version 4.0 was installed on a Mac Mini 2018 with OS 10.15 Catalina software (Apple, Cupertino, CA). DICOM data from patients’ chest CTs derived using lung window without contrast were copied to a computer. The chest CT images were automatically converted to a bronchoscopic view using the “3D endoscope” function in Horos [Figure 1]. We could move freely within the 3D virtual bronchial tree using the mouse buttons. We could export the virtual bronchoscopic data as a video using the “fly-thru” function [Video 1]. The virtual bronchoscopy procedure using Horos is almost same as that using OsiriX.

The latest version of OsiriX Lite has several limitations. It does not currently support importing data from compact disc or dealing with CT series larger than 500 images. Despite being free software, Horos supports compact disc data and has no limitations regarding dataset size. When we reconstruct 3D CT images, a thinner slice pitch is desirable. Compared to OsiriX Lite, Horos is suitable for 3D CT images, including those used in virtual bronchoscopy.

Bruhschwein et al. performed a comparison of seven free DICOM viewers[5] and reported that OsiriX Lite and Horos had the greatest number of important features. Since OsiriX Lite currently has several limitations, we think that Horos is the best free DICOM viewer, especially for the reconstruction of 3D CT images, including those used in virtual bronchoscopy.

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Conflicts of interest
There are no conflicts of interest.

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