Background: Chest percussion is a common form of bronchial hygiene therapy used in a variety of medical conditions. It can be performed mechanically or manually. The purpose of this study was to gather information related to the use and preference of the two methods from respiratory care practitioners (RCPs).

Methods and Materials: After receiving IRB approval, surveys were distributed to RCPs who attended the Idaho Society for Respiratory Care Annual Educational Conference in Boise, Idaho. The host of the conference reminded each attendee to complete the survey and return it to the properly labeled receptacle by the entrance. Ninety-four RCPs attended the conference; 35 (37%) completed surveys were turned in. Once we gathered the completed surveys, we evaluated each survey and categorized the various demographics (the results of each survey) onto an Excel spreadsheet. This gave us the ability to compare each RCP’s preference of mechanical versus manual percussion to their own clinical practice, 32 (91%) report using mechanical percussion most often, two (6%) use manual percussion, and four (11%) use both methods equally. Of the four RCPs who reported manual percussion being their preferred method, it is interesting to note that each of these RCPs was over the age of 50 years, has worked in the industry for more than 20 years, and three of the four were between the ages of 50 and 59 years.

Results: Out of the 35 RCPs completing the survey, 30 (85%) prefer using mechanical percussion, four (11%) use manual percussion, and one (3%) uses neither method more frequently than the other. Of the four RCPs who reported using manual percussion most often, it is interesting to note that all of them were over the age of 50 years, have worked in the field for more than 20 years, and three of the four were between the ages of 50 and 59 years. The Pearson Chi Square test of independence was used to assess the potential relationships. These included age, gender, height, weight, length of practice, and the preference of mechanical versus manual percussion. No statistically significant association was observed for any of these tests.

Conclusion: There was no statistically significant association between preferences of method of percussion or what the RCP uses most in practice. However, there were significant associations between preferences of method of percussion and various demographics (the results of each survey) onto an Excel spreadsheet. This gave us the ability to compare each RCP’s preference of mechanical versus manual percussion to their own clinical practice, 32 (91%) report using mechanical percussion most often, two (6%) use manual percussion, and four (11%) use both methods equally. Of the four RCPs who reported manual percussion being their preferred method, it is interesting to note that each of these RCPs was over the age of 50 years, has worked in the industry for more than 20 years, and three of the four were between the ages of 50 and 59 years. The Pearson Chi Square test of independence was used to assess the potential relationships. These included age, gender, height, weight, length of practice, and the preference of mechanical versus manual percussion. No statistically significant association was observed for any of these tests.