



The skills involved in functional reading literacy include the following: a) reading lengthy, complex, abstract prose texts as well as synthesizing information and making complex inferences; b) integrating, synthesizing, and analyzing multiple pieces of information located in complex documents; and c) locating more abstract quantitative information and using it to solve multistep problems when the arithmetic operations are not easily inferred and the problems are more complex [5].

This manuscript aims to evaluate the improvement of sound perception in patients with prelingual deafness that underwent cochlear implant using Advanced Bionics® device.

## Methods

Retrospective study of the medical records of the patients implanted with Advanced Bionics® cochlear implant in our institution between November, 2011 and November, 2012.

### Device

For this study, we used the Advanced Bionics® devices (the HiFocus® 1j electrode and the HiRes 90K® implant).

The HiFocus® 1j electrode consists of a fantail, electrode lead, and HiFocus 1j electrode array. The electrodes, composed of platinum-iridium alloy, are housed in a silicone carrier and extend from the titanium case. The HiFocus® 1j intra cochlear electrode array is designed to be inserted approximately 25 mm into a normally patent cochlea. It consists of 16 planer contacts arranged along the medial (or inside) surface of the electrode array for stimulation of discrete segments of the cochlea. The electrode contacts are numbered 1 through 16 from apex to base. The neck refers to the jog at the proximal end of the array that transitions the array to the lead. The fantail is directly connected to the electronic implant. The lead, which extends from the fantail, refers to the silicone carrier in which the electrode wires are enclosed [6].

The HiRes 90K® implant has 16 independent output circuits with bi-directional communication link of telemetry, the information update



