



Quality Assessment and Performance Improvement (QAPI) Initiative

Rady Children's is committed to delivering the highest quality care and services to our patients and their families.

This dedication is illustrated through our collaboration with the Children's Hospitals' Solutions for Patient Safety Network as we aim to eliminate all preventable harm at Rady Children's and at children's hospitals across the United States.

To achieve our clinical quality and safety goals, we use a systematic, comprehensive, data-driven, proactive approach that allows us to make continuous improvements in the quality and safety of care and services we provide.

Description of QAPI Initiative:

By July 1st 2017, we will compare the benefit of the manufacturer's fitting algorithm programming and BC direct programming in patients with mixed/conductive hearing loss that use a bone conduction sound processor on a softband.

Important to our patient population because:

Bone conduction hearing aids (HA) are more difficult to fit and verify than conventional HA. Consequently, most centers rely upon manufacturer formulas to prescribe required gain for a patient. Another method, Processor Direct Programming (BC direct), is more time consuming and difficult to obtain with young children.

This initiative AIMS to achieve the following goal(s):

Improve programming accuracy for bone conduction hearing aid fittings.

Focused interventions include:

The knowledge of when to fit using manufacturer's fitting algorithm or BC direct programming.

What does this data tell us?

- A larger increase in force gain was noted in children that had the least amount of absolute deviation in their transition loss as the device had enough headroom to adequately make the desired increases.
- Children with larger amounts of transition loss had less change in force gain as their device was "maxed out" and had insufficient headroom to appropriately increase the force gain levels.
- Changes in transmission loss were dependent upon age: the older the child [Figure 2], the larger the transmission loss and less force gain availability.

Our next steps include:

- Complete BC direct at hearing aid consultation
- If a child has a large transmission loss with a standard device, a more powerful device or a surgical option should be considered as these options decrease transmission loss.
- For younger children, the manufacturer's fitting algorithm should be sufficient

Data:

