

**DATE:** October 8, 2006  
**TO:** Steve Kohlman, Aquila Corporation  
**FROM:** Cathy Henderson, PT, MS, ATP  
**RE:** Use of Aquila Cushion for Mr. Barry

Steve,

This letter is to let you know how Barry has done using the Aquila Cushion. Mr. is a 56 year old male (height=6'0" and weight=125#) who was injured in a car wreck in 1982 resulting in complete C5 tetraplegia. His medical history includes significant heterotopic ossification (HO) in both hips, L5/S1 discitis and osteomyelitis. He has a P1CC for convenience of managing medications when he gets sick.

Barry is an active person using his manual wheelchair for mobility. He lives in a wheelchair accessible apartment and lives alone. He has hired an attendant to help him with ADLs in the morning and evening and is otherwise alone during the day. He has been sitting on a high profile ROHO cushion for years and has become dependent with pressure reliefs in the manual wheelchair due to his weak upper extremities and HO in his hips. Posturally he is locked in a sacral sitting position and no lordosis. He has declined pursuing a power wheelchair with power tilt because he has no way to transport the wheelchair when friends or caregivers take him for appointments or other activities. He is an accomplished artist, builder of remote control airplanes, and attends church. He spends time with friends and enjoys life. He was in a wheelchair 7-9 hours/day. Around March 2005, he developed a decubitus ulcer at the base of his scrotum, which quickly enlarged and deepened. He was on bed rest for the next several months, only getting up once a week.

He was admitted to inpatient rehab Jan. 05, 2006 with problems with autonomic dysreflexia possibly associated with toe infection (paronychia), decubitus in his right ischial area and sacral area, recurrent UTIs, neurogenic bowel/bladder, or HO in back and both hips. His weight had gone from 148# to 116# at this point. The goal of rehab was to address medical issues and seating to increase his sitting tolerance. He was pressure mapped on his current High Profile ROHO cushion while in rehab with good readings. However, due to the fact he is unable to perform an independent pressure relief, it was not recommended for him to sit on this cushion longer than 30 minutes without a pressure relief. The Aquila cushion was recommended because the cycles could be set to change the air pressure to help with pressure relief and allow Mr. to be up in his wheelchair vs. bed bound.

Mr. [redacted] was seen in our outpatient clinic for fitting and training of use of Aquila cushion on Feb. 09, 2006. (Firmness setting 2, Cycle A & B set at 1 minute each) He was given a chart to note number of hours in the wheelchair sitting on the Aquila cushion, pain scores and noting daily skin checks.

We were in contact with Mr. [redacted] approximately every 6 weeks for the next 8 months in his use of the cushion regarding his skin integrity, pain, and quality of life (ability to be up in his wheelchair participating in activities important to him, like art, time with friends, etc.). He reported no pain using the cushion. His home health nurse helped us monitor his skin. Over these months his skin condition varied and changes were made to the cushion along the way with the firmness to 3 and adaptations to the pads. His skin is not completely healed but he has had 2 hospitalizations (3/30/2006 - 4/4/2006 and 7/27/2006-7/31/2006) from infections of his 1CC line and was in the bed for several days each time, which caused his sores to worsen. He was also having difficulty with his low air loss mattress pump malfunctioning. A loaner pump was provided, which too was not working well. After finally getting a functioning pump for his bed, his sores began improving again.

Mr. [redacted] did acquire a new sore right under his right distal hamstring tendon with the use of the first cushion provided. After some bed rest and wound care, it healed. The Aquila Company provided a new cushion in which softness of the padding I all the cells was adjusted to address this. His home health RN has reported improvement in his skin, which is expected to continue as long as he stays healthy and now that his bed is fixed.

The major benefit the cushion gave Mr. [redacted], in my opinion, is his quality of life. He went from being completely bed bound to being able to be up in his wheelchair participating in his daily activities 6-8 hours/day on average. It was difficult to assess the true effect the cushion had on his sores because of other complicating factors noted above. Mr. [redacted] has been so much happier using the cushion and feels like in his words, "I have my life back".

I would like to continue to see Mr. [redacted] in a few months to see how he continues to do on the Aquila cushion. I do think the cushion has a place in the market for people just like Mr. [redacted] who need to stay in a manual wheelchair but are unable to do a pressure relief independently and are high risk for skin breakdown.

I support the theory and application of alternating pressure cushions and feel the Aquila Cushion is made well and the company is supportive and easy to work with when customizing a cushion. I will use this cushion in the future for appropriate clients.

All the best,

Cathy Henderson, PT, MS, ATP