Why We Do What We Do:  
A Story of Stroke Recovery 4 Years Out

Jennifer Humbert, MSN, RN, CNRN  
Kathy Morrison, MSN, RN, CNRN, SCRN  
Penn State Hershey Medical Center

Introduction
Stroke recovery is a complex process dependent upon a multitude of factors that occur during the acute hospital stay as well as during the post-acute hospital period. With hospital stays being limited to just days, acute care healthcare professionals see only the initial stroke insult; they do not have the benefit of seeing the patient’s progress in the post-acute period where the majority of progress is made. This case study outlines the continual process of functional recovery 4 years post stroke for Cody, a now 21 year-old stroke survivor who had a large MCA stroke at age 17, and received aggressive acute care prior to an aggressive rehabilitation program. Statistically, young people with large MCA strokes have high mortality rate and poor functional outcomes.

July 30, 2008
- 2 months after high school graduation  
- Woke up unable to speak intelligibly, unable to move R side  
- Taken to community hospital, CT showed large MCA stroke  
  - Transferred to Penn State Hershey Medical Center  
- Immediate hemicraniectomy with duraplasty done  
- Therapeutic hypothermia for 5 days  
- Insulin drip protocol for blood sugar management  
- Tight blood pressure control – needed to prevent hemorrhagic transformation, but also needed to ensure perfusion  
- Acute Rehab stay for 6 weeks  
- Outpatient therapy  

Cause of his stroke: clotting factor abnormality, +PFO, and dehydration (recent viral illness and alcohol intake)

Conclusion
Acute care healthcare professionals need to appreciate that the care they provide DOES make a difference for their patients. Cody benefitted from the aggressive blood pressure and blood sugar management, along with aggressive hypothermia and hemicraniectomy. On discharge from acute care, he was still quite debilitated — but with the combination of the excellent acute care and excellent rehabilitative care, he has made remarkable progress… and still is progressing… who knows what the next four years will bring.

July 2008
- Full visual fields, but perceptual deficits  
- 3rd grade reading  
- Excellent memory/mood  
- Botox, Bioness continue

3 Months
- Hemiparesis, Expressive aphasia, HA/carsick  
- Keppra, Atenolol, Aspirin, Effexor  
- Exelon added  
- Walking with cane

8 Months
- No falls  
- Mild expressive aphasia  
- HA/carsick gone  
- Saeboflex therapy initiated  
- Reduce atenolol  
- Walking without cane

1 Year
- RLE stronger  
- RLQ field cut bothering him  
- Expressive aphasia persists  
- Botox to RUE  
- Walking without cane

18 Months
- RUE stronger  
- Semi fluent speech  
- No neglect  
- Sinemet added

3 Years
- Mild RLE spasticity  
- Jogging regularly  
- Released from PT/OT  
- Bioness  
- Fluent speech - SLP  
- Continue Botox; Wean Keppra & Effexor  
- OVR added

4 Years
- Limited RUE use  
- L hand text/write  
- Full visual fields, but perceptual deficits  
- 3rd grade reading  
- Excellent memory/mood  
- Botox, Bioness continue  
- Tech school graduate

kmorrison1@hmc.psu.edu, jhumbert2@hmc.psu.edu