Giffords able to stand up as she readies for rehab
20 January 2011, By SUSAN MONTOYA BRYAN and MARILYNN MARCHIONE, Associated Press

Her swift transition from an intensive care unit to a rehab center is based on the latest research, which shows the sooner rehab starts, the better patients recover.

Giffords' family hopes to move the Arizona congresswoman on Friday to TIRR Memorial Hermann hospital in Houston, where her husband lives and works as an astronaut. The exact day of the move will depend on her health.

"I am extremely hopeful at the signs of recovery that my wife has made since the shooting," Mark Kelly said in a statement released by Giffords' congressional office. The staff at University Medical Center in Tucson "has stabilized her to the point of being ready to move to the rehabilitation phase."

Dr. John Holcomb, retired Army colonel and a trauma surgeon at the Houston hospital, praised the care she received in Tucson and said Giffords would "move quickly toward a tailored and comprehensive rehab plan."

Giffords was shot in the forehead Jan. 8 while meeting with constituents outside a grocery store in Tucson. She remains in serious condition. Her recovery has amazed her family and impressed her doctors, who say she is improving every day.

Over the weekend, Giffords was weaned off the ventilator and had her breathing tube replaced with a tracheotomy tube in her windpipe. Doctors also inserted a feeding tube to boost her calorie intake and repaired her right eye socket, which was damaged by the bullet.

Since being taken off sedation, Giffords has been alert and opening her eyes more often. She also started rigorous physical therapy, dangling her legs over her bedside to exercise her muscles and sitting in a chair for periods at a time. Kelly told ABC in an interview that she gave him a neck rub.
Still, the extent of her injuries and long-term prognosis won't be known for some time.

The gunman shot 18 other people, killing six and wounding 12. All survivors have been released from hospitals, and doctors say the hospital is now no longer the best place for Giffords.

"When she's medically stable, there's really no reason to keep her there," where she could get infections and other complications long known to plague patients with long hospital stays, said Dr. Steve Williams, rehab chief at Boston Medical Center and the Boston University School of Medicine.

"Over the last five to 10 years, there has been a big push to getting patients rapidly to rehab," because research shows they recover faster and better the earlier therapy starts, he said.

Giffords will likely be moved to Houston by Medevac jet, Williams said, and there is little risk of a brain injury from flying. Since part of her skull has been removed, there is less pressure on the brain, and there has been no problem with swelling during her recovery. During rehab, she will probably wear a helmet.

Once she arrives in Houston, doctors will do a complete assessment of what Giffords can and cannot do, said Dr. Reid Thompson, neurosurgery chief at Vanderbilt University in Nashville.

"The rehab is going to be pretty intense for her, both cognitively and physically," because she'll need to recover frontal lobe functions, Thompson said. "She's going to have to relearn how to think, plan, organize."

A penetrating brain injury like a bullet wound leaves a specific path of damage. Giffords' wound path appears to be below the motor cortex, which controls movement, but may include an area controlling speech, Williams said.

He is not involved in Giffords' care and based his comments on diagrams and reports of her injury that have been made public so far.

"One of the questions is whether she'll be able to speak," Williams said. Giffords has a breathing tube now, and even if this impedes her speech, she might be able to mouth words.

"That would be a good indication that she at least is able to express herself," Williams said.

"The cognitive ability and the speech are the key things," he said. "We know that she's moving her limbs. The question is, how strong is she."

Giffords' family considered rehab centers in Washington, New York, Chicago and Houston, doctors said. The Houston one "has a national reputation for treating serious penetrating brain injuries and is also in a community where I have family and a strong support network," Kelly's statement said.

He is scheduled to command NASA's last space shuttle flight in April, but that's uncertain now.

TIRR Memorial Hermann is a 116-bed rehab facility that is part of the Texas Medical Center in Houston. TIRR, which stands for The Institute for Research and Rehabilitation, claims to have the largest research program on recovery from traumatic brain injury in the world, and gets federal funding for long-term study of such patients.

One of its success stories is Buffalo Bills' tight end Kevin Everett, treated after a life-threatening spinal cord injury in 2007. Everett was paralyzed from the neck down when he arrived at the rehab center in September 2007; now he can walk.

Remarkably, Giffords may not spend much time at TIRR. She will probably spend just five to eight weeks at the rehab center, then continue getting therapy as an outpatient, Williams said.

"Her early recovery is very promising," and bodes well for further improvement, he said.

More information:
Houston rehab center: http://tinyurl.com/deyasw

Centers for Disease Control: