Gladys's Story

Gladys was born in 1949 and grew up in the Bridal Path, Toronto. She was an only child whose parents provided her with everything she could ask for. She went to private schools, vacationed in foreign destinations, and never really had any worries.

Gladys met her husband at a party in 1965 when she was home from school. Hugh was a friend of a friend, and part of Gladys's socio-economic class. They got to know one another over the summer, and promised to stay in touch while Gladys was away finishing school. Despite her parents' disapproval over her relationship with Hugh, Gladys married him in 1968.

Gladys started smoking when she was 16 years of age and continued to smoke over one pack per day until recently. She also continued the tradition of afternoon cocktails all through her adult life. Gladys did not work outside of the home, had a cleaning lady come in once per week and a full-time cook. After Paul was born, Gladys and Hugh hired a nanny, who stayed with them until Paul started school. Life was going well until 1989, when Gladys found out that she was pregnant again. Gladys continued to smoke and have afternoon cocktails during both pregnancies. Brian was born in late 1989 and diagnosed with Down syndrome. Shortly after his birth, Brian required a number of surgeries and he remained in hospital for approximately the first year of his life.

Gladys and Hugh visited Brian infrequently during his hospitalization. Brian was discharged home, where he had private care around the clock. Gladys went to see her son once each day, but did not interact with him.

Gladys was diagnosed with stage 2 COPD in 1999 and told to quit smoking. She tried many times without any success. In 2015, her COPD became severe and she was prescribed oxygen therapy, stage 3 COPD.

Medications:

Formoterol and budesonide (Sybicort)-bronchodilator and inhaled steroid

As early as 2010, Hugh started noticing changes in Gladys. She was becoming increasingly forgetful and would often behave in ways that were not normal for her.

- Memory loss-she would forget that she had something on the stove
- Poor judgment leading to bad decisions-Gladys would smoke next to her oxygen tank
- Loss of spontaneity and sense of initiative
- Taking longer to complete normal daily tasks-she was often unkempt
- Repeating questions-continually asking when Paul would be home from school
- Trouble handling money and paying bills
- Wandering and getting lost-was found numerous times wondering the streets unaware of how to get home
- Losing things or misplacing them in odd places
- Mood and personality changes-sexually inappropriate (thought Paul was Hugh and started kissing him)

• Increased anxiety and/or aggression-physically lashed out at Hugh when he was trying to help her

Hugh took her to see her family physician who diagnosed Gladys with Alzheimer's disease.

Diagnosis of Alzheimer's disease:

Physical and neurological examination: Reflexes, muscle tone and strength, coordination, balance, ability to sit and get up from the chair or movement around the room, sense of sight or hearing are examined to study the overall neurological health.

Laboratory test: Blood samples are collected to help detect if there are any signs of memory loss or confusion such as vitamin deficiency or a thyroid disorder.

Brain imaging:

Magnetic resonance imaging **(MRI):** Radio waves and a strong magnetic field is used to produce detailed images of the brain. MRI scans may also show brain shrinkage.

Computerized tomography (CT): It is a specialized X-ray technology that produces cross-section images of the brain.

Positron emission tomography (PET) is a low-level radioactive tracer that is injected to the blood to reveal particular features of the brain; it includes three types of image screening like-

Treatment of Alzheimer's disease

- Cholinesterase inhibitors: boosts the level of cell-to-cell coordination which usually gets depleted in the brain. This drug helps to preserve a chemical messenger. Although improvement is modest still agitation and depression levels are moderated well.
- Memantine (Namenda): slows the progression of symptoms and at times combined with a cholinesterase inhibitor. This drug functions in another brain cell communication network and rare cases may cause side effects such as dizziness and signs of confusion.
- Anti-depressants: to help control behavioural changes

Over the next few years, Gladys continued to deteriorate.

- Increased memory loss and confusion
- Inability to learn new things
- Difficulty with language and problems with reading, writing, and working with numbers
- Difficulty organizing thoughts and thinking logically
- Shortened attention span
- Problems coping with new situations
- Difficulty carrying out multi step tasks, such as getting dressed
- Problems recognizing family and friends
- Hallucinations, delusions, and paranoia

- Impulsive behavior such as undressing at inappropriate times or places or using vulgar language
- Inappropriate outbursts of anger
- Restlessness, agitation, anxiety, tearfulness, wandering—especially in the late afternoon or evening
- Repetitive statements or movement, occasional muscle twitches

Hugh discussed Gladys's care with her family physician as he wanted to keep Gladys at home. It was decided that the familiar surroundings of home would be beneficial to Gladys, however additional supervision and care was necessary.

By 2018, Gladys could no longer communicate and was completely dependent on others for her care. A care conference was called with her primary care team, Hugh and Paul. It was decided that it was best for Gladys to be placed in a long-term care facility.

- Inability to communicate
- Weight loss
- Seizures
- Skin infections
- Difficulty swallowing
- Groaning, moaning, or grunting
- Increased sleeping
- Loss of bowel and bladder control

Approximately nine months after admission Gladys was diagnosed with aspiration pneumonia. The facility's physician presented Hugh with the options of antibiotics to treat the pneumonia and a feeding tube to provide Gladys with nutritional input while lowering the risk of aspiration. Hugh weighed the benefits and risks of these treatment options. Based on what Hugh knew of Gladys's values, he decided to withdraw all treatment and signed a DNR. Two weeks later, Gladys passed away in her sleep.