

Patient Care Example: IAH vs. Usual Care

Case Example:

Mrs. Smith is a 78-year-old widowed female who lives in her own home. Her daughter, who teaches school, is her primary caregiver and cares for her three children of her own and lives about ½ hour away in a nearby suburb. Mrs. Smith has a history of chronic heart failure, high blood pressure, adult onset diabetes, and moderately disabling arthritis of the back, hips, and knees, enabling her to still care for herself, but not without careful and caring contact from her daughter. Mrs. Smith begins to notice she is getting fatigued cleaning her house and has taken to a mid-afternoon nap. Mrs. Smith's daughter begins to get concerned that her mother's energy level has declined and she just doesn't seem as "perky" as usual. Mrs. Smith is urged by her daughter to call her doctor to address this change in her usual level of vitality.

Up to now: Mrs. Smith calls her physician's office and asks for an appointment because of her increasing fatigue. The office staff tells her that the physician has a vacancy for her to come in about 10 days from now. Mrs. Smith tells her daughter who arranges to take time off from work and after-school care for her mother to drive her to the physician's office. During the ensuing week, Mrs. Smith and her daughter note that she is now obviously breathless at the slightest exertion around the house and is avoiding her routine daily activities on account of that. They call the physician's office together to make them aware of this and the physician's nurse takes the call, confers with the physician, and calls them back and asks them to go to the hospital emergency room "in case the heart is acting up." Once in the emergency room, Mrs. Smith has a battery of tests and xrays over the course of 6 hours and it is determined that she has "fluid in her lungs" and needs that fluid taken off, and she should stay in the hospital for this treatment as well as a consultation with her cardiologist.

With IAH: Mrs. Smith calls her physician's office and informs them that she has increasing fatigue. The physician dispatches his nurse practitioner who plans to make a housecall that evening on the way home to determine how the patient really is doing. The housecall reveals several things. The patient has several canned soups in her kitchen and when asked, affirms that she has been heating them up for lunch lately as the summer has turned to fall. The nurse practitioner brings a hand held portable blood analyzer to the home and 5 lb EKG machine, and determines with a drop of blood from her fingertip that she has no evidence of infection, serious blood loss, or other blood abnormalities that would explain her new fatigue. She listens to her heart and lungs and with a paper clip sized clasp on her finger, determines that she is a little low on oxygen. She does an EKG right there and assures that there has been no recent heart attack. She reviews Mrs. Smith's medications with her and checks her medications, with her permission, in her medicine cabinet. She concludes that Mrs. Smith is in a little bit of heart failure. She calls the physician from the patient's home and advises her to take more of one of her heart medications, advises her of how it should make her go to the bathroom more often

and to be careful getting up at night, asks if she can call the daughter to let her know the new medication plan, and advises that a visiting nurse come by to check on her status over the course of the next week. Mrs. Smith consents to the plan and is advised to refrain from eating the canned soups, which contain a lot of salt and probably led to her problem, to call the office if she has any further trouble breathing, and that the office will call her to see that her fatigue improves over the next several days. She asks the patient to log her weight daily and to let the visiting nurse know what it is. She tells her how important it was for her to recognize her symptoms of fatigue and let the office know before it got so bad she would have needed more aggressive treatment in the hospital and expose herself to some of the risks, lack of personal control, and regimentation in the hospital.

Summary: The differences in outcomes for patients treated under the IAH program include but are not limited to the following:

- 1) Patient was treated in her home so her daughter didn't have to miss work.
- 2) Observation in the home allowed discovery of the underlying cause of the heart dysfunction, i.e. the change in diet.
- 3) Earlier detection, and diagnosis of the problem.
- 4) Easier and successful treatment of the problem and removal of the underlying cause.
- 5) Improved peace of mind for the patient and the daughter.
- 6) Appropriate use of follow-up and monitoring to prevent recurrence of the problem.
- 7) More emphasis on patient self-management.
- 8) Improved patient outcomes with markedly reduced cost and elimination of an unnecessary hospitalization.