

Clinical Case Study Example of Improved Quality, Efficiency and Reduction of Cost

Case Study

Patient is a 64 year old woman with primary biliary cirrhosis and concurrent alcohol abuse. She was not compliant with office follow up for two years and presented to the office on 12/2/09 with her daughter manifesting jaundice and confusion consistent with mild hepatic encephalopathy. The patient's confused mental status prevented a reliable history and the daughter was unaware of medications or other pertinent history.

SandlotConnect was accessed with the following relevant findings:

- ER visit 9/3/09 at HMS Hospital
- ER visit 10/10/09 at HMS Hospital.
- Diagnostic studies included a chemistry panel with BUN 11, albumin 2.5 and Bilirubin 5.7, Alk Phos 590. CBC-Hgb 13, Plt 132,000, WC 5,600. Serum Ammonia=40 umol/l, CXR-normal, Head CT-normal
- Diagnoses include portal hypertension, esophageal varices, primary biliary cirrhosis, urinary tract infection, and abnormal EKG.
- Other tests available from 6/19/09 included an Abdominal US showing evidence of cirrhosis but no sign of biliary obstruction or mass and a normal alpha-fetoprotein.
- A medication list included Doxepin, ferrous sulfate, nadolol, Nexium, and ursodiol.
- Allergy to Doxycycline

The clinical information available during the office visit prevented the expense of duplicate diagnostic and imaging studies. The laboratory studies provided a baseline for comparison of subsequent studies. From the medication list it was determined that Doxepin was a likely contributor to her progressive encephalopathy and it was discontinued.

SandlotConnect provided a wealth of clinical information at the time and place of service that would not otherwise have been available. Because of the patient's confusion, the physician would not have even known that some of the studies had been performed and would likely have repeated them.

The wealth of clinical information allowed a more accurate assessment of the patient's medical status leading to a more cost-effective, focused evaluation. The following table illustrates the potential savings incurred as a result of the information being available at the time of visit with her Gastroenterologist. The table demonstrates the diagnostic tests that **may have potentially been ordered and the costs associated**. The columns include the single diagnostic test CPT, the Medicare Fee schedule (2010 Tarrant County, Texas), and the commercial insurance reimbursement (assumed at 140% of Medicare) within the community.

DIAGNOSTIC TEST (CPT DESCRIPTION)	2010 MEDICARE REIMBURSEMENT	INSURANCE REIMBURSEMENT
71020 – Chest X-Ray	29.36	41.10
70470 – Cat Scan of the Brain	290.92	407.28
76700 – Ultrasound of the Abdomen	128.09	179.32
93000 - EKG	19.30	27.02
80076 – Hepatic Function Panel	11.70	16.38
60306 - CBC	11.14	15.59
85345 – Coagulation Study	6.16	8.62
99213 – Repeat Office Visit	64.14	89.79
HOSPITALIZATION - DRG 441 – Hepatic Encephalopathy/Portal Hypertension	14,092.40	22,547.84
99222- Initial Hospital Visit (Physician)	128.20	179.48
99232 – Subsequent Hospital Visit (6)	410.04	574.05
Potential savings realized as a result of the information being available to the physician via SandlotConnect.	\$15,191.45	\$24,086.47