

'Best Practice' at Coney Island Hospital Dubbed a '10 out of 10' New Medicine Schedule Caps Shifts to 12 Hours

The Medicine Department at Coney Island Hospital, in Brooklyn, New York, is a place determined to make changes in resident work hours. Towards that end, they invited Dr. Steven Lockley, assistant professor of Medicine at Brigham and Women's Hospital in Boston, Mass., and a member of the Harvard Work Hours Health and Safety Group, to give the Grand Rounds presentation on July 28, 2005, and share his knowledge in the field of sleep research. The Harvard Work Hours Group is known for its groundbreaking studies on the increased risk of medical errors and car crashes among sleep deprived medical interns published in the *New England Journal of Medicine* this past year.

It's how you cut hours that matters

"It's not just a matter of cutting work hours, but *how* you do it, taking into account the body's natural circadian rhythms," Dr. Lockley said. "An 80-hour work week doesn't take into account the need for sleep." The intervention schedule pioneered at Brigham is a traditional on-call schedule split in two, (with an 8 hour, and a 15-hour shift) with Q3 split among 4 interns, creating a day call and a night call (with nap time before the night call). "This schedule requires interns to work as a team, and have well-structured hand-offs," he said. "The transfer of knowledge about patients admitted by other interns is critical, and we found that 'buy-in' by attendings is also critical for success."

Despite skepticism among some supervising attendings, their study found that when residents worked less, they did, in fact, sleep more. Some of the future goals of the Harvard Work Hours Group include expanding their study to other specialties (beyond

Medical and Coronary Care Units), including senior residents in their studies, and improving the sign-out and rounding processes.

Dr. Darshan Godkar, CIR delegate, and a chief resident in Internal Medicine at Coney Island Hospital was instrumental in getting Dr. Lockley to speak at his hospital. "I went to the CIR Convention in May and heard Dr. Czeisler's presentation (of the Harvard Work Hours Group, who was the keynote speaker). I was inspired by it, and came back and spoke with my program director, and he was very interested."

Dr. Godkar was lucky to have more than an ally in his program director, Dr. Selvanayagam Niranjana, who was a former CIR resident himself at Coney Island Hospital. "He was determined to cut our work hours, and cut down on the non-physician work," Dr. Godkar said.

Introducing a new schedule

By July 1, 2005, Dr. Niranjana had instituted a new schedule of 12-hour shifts for all Medicine residents, with one 24-hour on call shift per month. Dr. Godkar was the first one to try the new schedule, volunteering to "go through the routine myself first."

His findings after living with the new schedule for one month? "I was fresh through the night and day call, and never felt sleep deprived. I was able to monitor and treat MICU patients much more aggressively. Previously, when I did 24 hour calls, by around 9 PM, I was so exhausted that now I feel guilty that I might have compromised patient care. Overall, I give this system a 10 out of 10."

Coney Island Hospital adopted a different intervention schedule than the Brigham Hospital schedule described by Dr. Lockley. The Coney Island schedule is very simple:

New schedule:

- Six 12-hour shifts per week: 12-12-12-12-12-12-0 (for a total of 72 hours worked per week.)

Old schedule:

- 24-0-10-24-0-10-24 (for a total of 68 hours one week, and 92 the next, averaging 80 hours per week.)



Dr. Stephen Lockley (center) of the Harvard Work Hours Group gave the Grand Rounds at Coney Island Hospital on sleep research and the intervention schedule they devised at Brigham and Women's Hospital. Left to right, Dr. S. Niranjana, Program Director for Internal Medicine, Dr. Amit Patel, Chief Resident, and Dr. Darshan Godkar, CIR delegate and Chief Resident, shared information about their new schedule, which is different than Brigham's, but also cuts down hours.

The upside of the new schedule is that with the exception of one 24-hour call, there are no shifts of over 12 consecutive hours. The downside is that residents don't get a full weekend, or two consecutive days off. "I like it a lot better than the old schedule," said Dr. Emmanuel Akinyemi, a PGY 2 in Medicine.

Overcoming resistance to change

In his talk, Dr. Lockley explained that their research has found that "sleep consolidates memory, and without adequate sleep, you don't learn."

Program Director Niranjana was also concerned about residents learning, and having slept enough that they would be able to retain what they had learned. In an interview with *CIR News* following the Grand Rounds, he credits the Chairman of the Medicine Department, Dr. Robert Cucco, with giving him the autonomy and support to make these changes possible.

"Change is not easy," said Dr. Niranjana. "The departing residents did not want this change. We all think about ourselves more than the big picture, and so some residents liked the previous schedule because after the on-call, you're off the next day." For Dr. Niranjana, just getting residents to overcome their resistance to change was his initial hurdle. "It's always eas-

ier to go with what you know, but if someone does this new schedule, everything falls into place."

"I have a lot of personal commitment to this hospital," said Dr. Niranjana. Residents always worry about change because usually it means more work. But not in this case. We'll send out a survey after six months and get everyone's feedback on it. If I had this when I was a resident and fellow, I wouldn't have been so tired. I would have had a better quality of life and would have done a better job."