



Assessment of 'Five Minute Regime' Method to Improve Productivity of A Radiologist

KEYWORDS

Health risks, Sedentary behavior, Five minute break

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ABSTRACT *In an era of rapid advance in Imaging field it is noted that a Radiologist can read all the imaging modalities from the comfort of his reading room. This has immensely improved the turn-around time for reporting but it has adversely affected the health of the Radiologist. Here I try to measure this adverse factor and try to find a way to overcome it. This will help in giving best reports to the patients and increase the efficiency and standard of the Radiology department.*

INTRODUCTION

In the era of advanced technology, teleradiology has come as a boon for all of the health care system. One radiologist now can read much more studies from all the modalities sitting in a remote reading room than he used to read years back. Considering less number of technically sound Radiologists all over the world the number of reads coming to a teleradiology reading room is immense. A radiologist generally sits in his chair for at least eight hours dictating the reports or typing them on his own. This has led to few health hazards in the radiologist (1,2). Main symptoms seen are – Headache, Pain at the neck and lower back, fatigue and depression (3,4,5,6). This in turn leads to reducing the quality of reports made by the Radiologist. We tried to adhere to a protocol of 'five minute break every hour' and tried to measure any change in quality of reports made. This helped the Radiologist to get rid of the symptoms and also increase the productivity of the department.

MATERIALS AND METHODS

At our medical college we chose 6 post graduate students {second year students} as subjects for the study. At the college the reporting time for various modalities {including radiographs, special procedures like IVP and CT scans} is 9.00 am to 5.00 pm. We gave randomly chosen similar five studies to all the six resident students to read in last hour of their working schedule i.e. 4.00 to 5.00 pm. Out of the six students we applied 'five minutes break regime' to three subjects for the whole day while other three worked routinely. In five minutes break we asked the subjects to dictate the report while walking for a minute. Go to the water station and drink a glass of water(7). Do stretching exercises especially for the cervical spine, lumbar spine and wrists. They also did eye rotation exercise. This break was taken after every hour of sitting work by the three subjects. Purposefully all the subjects were taken from same academic year to avoid any intellectual quotient affecting the study results. This was followed for six months.

'Five minute break' regime

Dictate reports standing	1 minute
Go to water station and drink a glass full of water	1 minute
Eye exercise	1 minute
Stretching exercises	2 minutes

RESULTS AND DISCUSSION:

All the studies read by the subjects were read by senior consultant radiologists in the department.

We found out that the group which took five minutes break every hour was more efficient and did not miss minor findings too. The other group missed few of the minor findings on the studies and hence was less efficient.

All the six subjects read 600 studies over six months out of which 300 were radiographs/ 48 special procedures and 252 CT scans.

Modality	Findings missed by Group A	Findings missed by Group B
Radiographs	7	13
Special procedure	0	1
CT scan	16	29

Group A – Group following 'Five minutes break'
Group B – Group not following 'Five minutes break'

Few of the misses done by group B were:

On radiograph – Minimal pleural effusion, Undisplaced fracture at distal radius, fracture at rib. On Special procedure – Small calculus in kidney on IVP study.

On CT scan - Adrenal adenoma, Renal cyst, Fracture at occipital bone.

Both the groups missed few findings like Supraspinatus calcification on radiograph, depressed fracture of tibial plateau on knee radiograph, small pituitary adenoma on CT scan, venous sinus thrombosis on plain CT scan Brain.

CONCLUSION:

We concluded that 'Five minutes break' regime helped increasing the quality of reporting of the radiologist and of the department. We also noted that the group A subjects were more energetic at the end of the day and happily indulged in extracurricular activities like sports after eight hours of work.

This system can be used in other fields of medicine as well to increase the efficiency of the health worker and doctor.

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