HealthManagement
Promoting Management and Leadership

Volume 9 - Issue 3, 2009 - Cover Story

Workflow Scheduling with Multiple Equipments Requirements

The Case for MRI & CT Scanning

Scheduling appointments plays a crucial role in the smooth administration of the radiology department, particularly when multiple pieces of equipment have to be managed simultaneously. Access to modalities is assigned according to different sectors' requirements and volume of activity. All radiological appointments are made directly via the radiology department by phone or fax, seldom by email.

RIS Provides Better Scheduling Capacities

In 2004, the introduction of a dedicated administrative IT system in the radiology department gave the opportunity to partially redefine the scheduling system. At first, the new RIS system calibration was based on the existing appointment roster (one roster per testing room) while taking clinical sectors heads' wishes into account. It also allowed the possibility of adding urgents tests, multiple appointments for the same day or for a series of different days, tests carried out for experts' reports or clinical studies or customised slots. Absences of doctors in charge and of staff, or maintenance breaks could also be entered into this new system.

The parameters made it possible to differentiate between scheduling slots for hospital patients and those for outpatients. Previously, when an appointment was made, secretaries were instructed to favour hospital patients' requests: in the RIS agenda system, appointments are set according to a search for the first slot available.

The implementation of a RIS system has many advantages. As foreseen, the system manages schedules and generates work lists transmitted electronically to testing rooms. Therefore rooms are managed, activity and missed appointments monitored, statistics are produced and access to the rest of the administrative chain (e.g., test reading, billing, link with PACS, etc.) is secured.

Optimising the RIS Scheduling System

With use, we noted that the elements that need improving are linked to the RIS system itself, to the hospital's evolution, to health policy in general and to radiology in particular. Firstly, RIS efficiency requires an operational connection with the HIS in order to achieve a bi-directional transfer of patient administrative data. This interface must be optimised continually. Furthermore, RIS systems are complex and require experienced users and a good knowledge of their potentialities. Receptionists using RIS must be trained and able to use it in the most efficient manner. Their skills must be regularly updated.

At a hospital level, however, changing health policies have disrupted and challenged our administrative organisation. For example, hospital beds used to be accounted for by mutual agreement where the hospital had a certain number of agreed-upon beds - but these beds must now be justified by type of pathology and duration of stay. The duration of hospital stays must consequently be limited as much as possible, so that the hospital is not penalised for overstays.

Moreover, part of the reimbursement for radiological exams by social security is done in the form of a lump sum for hospital patients, but not for outpatients. Rather than extending a patient's hospital stay, it is thus now more appropriate to conduct tests in an outpatient context.

Finally, in the last few years radiology departments have experienced a net increase in demand for MRI and CT scans. At Erasme hospital, 30% of the CTs done in one day (approx. 90) come from the emergency department. They have to be inserted into the schedules. On top of this, one has to take into account the fact that 5 - 8% of patients do not show up for appointments.

Advice for Optimising Scheduling Systems

Experience shows today that an increase of RIS efficiency involves bypassing some rigid rules, such as "one slot = one appointment". There are several ways to achieve this :
• Train receptionists towards a more flexible scheduling policy,
• Appoint a manager for each heavy equipment section, in charge of appointments, whose role is to manage requests as they come in and to find a slot quickly;
• Create a "virtual waiting room", namely a screen of additional appointments on top of the three CT scanner and four MRI schedules. All additional or urgent requests must be pre-recorded there. Consequently, in every test room, the technician and the doctor in charge of the programme see their own schedule on the screen and the virtual waiting room where they can select patients as soon as a slot becomes free in their initial schedule, and finally,
• Promote the integration of computed requests/prescriptions, to be introduced by prescribing doctors and forwarded electronically.

Published on : Thu, 3 Sep 2009