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Doctors' time for working with patients and patients' time with doctors

OPINIONS

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The number of doctors in hospitals is increasing far faster than the number of patients. Although hospital doctors claim to have less and less time available for working with patients, each patient nevertheless spends more time with a doctor. The doctors' working hours need to be better organised to improve resource efficiency and patient treatment.

In a recently published study by Rosta and Aasland, based on surveys undertaken in the period 1994–2014, hospital doctors claim that they have less and less time available for working with patients, even though their total working hours remained unchanged (1). However, during the same period, the number of doctors more than doubled, while the number of patients increased by no more than 17 per cent. With such a strong increase in the doctor/patient ratio, even a considerable decrease in the time available for an individual doctor to work with patients will nevertheless mean that each patient can spend more time with a doctor, although this may include time with a number of different doctors.

New analyses

The results from the study by Rosta and Aasland have therefore been analysed in light of the rise in the number of doctors in the specialist health service during 2010–14 and the patient volume in same period.

Medical resources and patient volumes in hospitals

Nationwide figures for the number of doctors in the same specialties that were included in the study by Rosta and Aasland for 2010 and 2014 were retrieved from Statistics Norway and the Directorate of Health (2). These included medical specialties (paediatrics, physical medicine and rehabilitation, dermatology and venereology, internal medicine, haematology, endocrinology, gastroenterology, geriatrics, cardiology, infectious diseases, pulmonary diseases, phrenology, neurology, oncology and rheumatology) as well as surgical specialties (anaesthesiology, obstetrics and gynaecology, general surgery, paediatric surgery, gastric surgery, vascular surgery, thoracic surgery, urology, breast and endocrine surgery, maxillofacial surgery and diseases of the oral cavity, neurosurgery, orthopaedic surgery, plastic surgery, otorhinolaryngology and ophthalmology). Data for trends in the number of patients in outpatient medical treatment, including radiotherapy, chemotherapy and dialysis, were retrieved from the Samdata report for 2014 (3). Data on the working hours of doctors and the time they spend working directly with patients were retrieved from the study by Rosta and Aasland (1).

Hospital doctors' working hours and time for patients

Total working hours and total time for work with patients per week for the country as a whole were estimated by multiplying the average weekly working hours with the national figures for doctors in medical and surgical specialties in hospitals (1, 2). The average total working hours for doctors and the patient-oriented working hours per patient in outpatient medical treatment and outpatient surgery were then estimated and recalculated to give doctors' working hours per patient per week (1). Since there are no statistics available by specialty for hospitalised patients (hospitalisation days) and patients in outpatient consultations, the total working hours and time for work with patients for all 'somatic-hospital doctors' had to be estimated by merging total working hours and time for work with patients after weighting based on the number of doctors in the two groups. This estimated time for work with patients was subsequently used to estimate the relative changes in the time spent with doctors by patients who are hospitalised and in outpatient consultations respectively.

National changes in the number of doctors and patient volume

As shown in Table 1, during the period 2010–14 the number of doctors increased by 17.9 % and 8 % in medical and surgical specialties respectively, resulting in a total increase of 13 %. In the same period, the number of patients in outpatient medical treatment declined by 11 %, while the number of patients

in outpatient surgery increased by 0.7 %. The number of hospitalised patients (i.e. hospitalisation days) declined by 7.1 %, while the number of outpatient consultations increased by 11.9 %.

Table 1

Medical man-years and patient treatment in 2010 and 2014 in the clinical somatic specialist health service (hospitals). Figures from Statistics Norway and Samdata (2, 3)

	2010	2014	Change (%)
Doctors			
Total number of hospital doctors	8 904	10 281	+15.5
Doctors in medical specialties	3 375	3 979	+17.9
Doctors in surgical specialties	3 390	3 665	+8.1
Total	6 765	7 644	+13.0
Patients			
Total number of hospitalisation days	3 852 117	3 577 784	
Hospitalisation days per week	74 079	68 804	-7.1
Total number of outpatient consultations	4 964 374	5 553 384	
Outpatient consultations per week	95 469	106 796	+11.9
Surgical outpatient treatment	209 734	211 244	
Surgical outpatient treatments per week	4 033	4 062	+0.7
Medical outpatient treatment (hospitalisation days)	157 963	140 565	
Medical outpatient treatments per week	3 038	2 703	-11

Total working hours, time for work with patients and patients' time with a doctor

In medical specialties, the doctors' total working hours increased by 17 % (Table 2). Even though individual doctors reported less time spent working with patients, the total time spent with patients increased by 6 % because of the increase in the number of doctors. Because of the lower number of patients, this meant that each outpatient spent 20 % more time with a doctor.

Table 2

Relative changes from 2010 to 2014 in total working hours and hours spent working with patients for doctors in medical and surgical specialties, and the equivalent time devoted to work with patients per patient in outpatient medical and surgical treatment. Data on working hours and the number of patients were retrieved from Rosta and Aasland (1)

	2010	2014	Change (%)
Medical specialties			
Number of doctors	3 375	3 979	+17.9
Number of working hours per week per doctor	46,7	46,4	-1
Total number of working hours per week	157 613	184 626	+17
Time for work with patients per doctor per week	23,0	20,7	-10
Time for work with patients per week in total	77 625	82 365	+6
Patients in outpatient treatment per week	3 038	2 703	-11
Time for work with patients in outpatient treatment	25	30	+20
Surgical specialties			
Number of doctors	3 390	3 665	+8.1
Total number of working hours per week per doctor	47,6	48,5	+2
Total number of working hours per week	161 364	177 753	+10
Time for work with patients per doctor per week	29,4	26,1	-11
Time for work with patients in total	99 666	95 657	-4
Patients in outpatient surgical treatment per week	4 033	4 062	+0.7
Time for work with patients per surgical outpatient	25	24	-0

Similarly, the working hours of doctors in surgical specialties increased by 10 % in total, while their time available for work with patients decreased by 4 %. This notwithstanding, the time spent with a doctor by each individual surgical outpatient has remained virtually unchanged. For all doctors in the somatic specialist health service in total, each hospitalised patient received 17 % more time with a doctor from 2010 to 2014, while the time for work with patients in outpatient treatment declined by 5 % /Table 3). Assuming that no change had occurred in the time that doctors spend on working directly with patients in the period from 2010 to 2014, and the total working hours had remained unchanged, hospitalised patients would have received 29 % more time and those in outpatient treatment would have had 5 % more time with a doctor.

Table 3

Relative changes from 2010 to 2014 in total working hours and time for work with patients for doctors in the clinical somatic specialist health service and time for work with patients per hospitalised patient and patient in outpatient consultations. Figures

for hours per doctor have been recalculated from Table 2 to a weighted average for doctors in the somatic specialist health service. Figures for hospitalised patients (i.e. hospitalisation days) and patients in outpatient consultations were retrieved from Table 1. Changes in time available for work with patients per patient have been estimated on the basis of no changes in the total time that doctors have available for work with patients

	2010	2014	Change (%)
Number of doctors in somatic specialties	6 765	7 644	+13
Weighted total working hours per doctor per week	47.1	47.4	+1
Total working hours per week	326 572	387 742	+19
Weighted time available for work with patients per doctor per week	26.1	23.3	-11
Total time available for work with patients per week	181 343	190 491	+5
With unchanged time available for work with patients		213 446	+18
Patient volume			
Hospitalisation days	74 079	68 804	-7.1
Outpatient consultations	95 469	106 796	+11.9
Doctor hours per hospitalisation day and consultation			
Time for work with patients per hospitalisation day	2.4	2.8	+17
With unchanged time available for work with patients		3.1	+29
Time for work with patients/consultations	1.9	1.8	-5
With unchanged time available for work with patients		2.0	+5

Assessment of doctors' working hours

Rosta and Aasland merit praise for their study of how hospital doctors spend their working hours, because only few equivalent studies are available (4–7). Although their results are interesting, their sample of doctors may not be representative. Since the distribution of patients among the different specialties varies between outpatient treatment, hospitalisations, elective admissions and emergencies, an average – whether weighted or unweighted – will hardly be representative. Moreover, there is uncertainty as to whether surveys produce answers that correspond to reality.

Time devoted to work with patients

In the study by Rosta and Aasland, the doctors claimed that they had less time available for working with patients than previously. When these results are analysed in light of the patient volume, each patient now has *more* time with a doctor. The reason is that more doctors and fewer patients more than compensate for each doctor's experience of having less time available for working directly with patients. The results indicate that especially those patients who are hospitalised or in outpatient treatment are enjoying more time with a doctor, whereas only a small change, or perhaps even a reduction, has occurred with regard to the time that the patients spend with a doctor in outpatient consultations. Because other studies show that hospital doctors spend four times more time on patients who are hospitalised when compared to those in outpatient treatment, it is likely that all patients in total now spend more time with a doctor (4, 5, 7). This is corroborated by the fact that check-ups account for a growing proportion of the outpatients (8). If no reduction in the time available for working with patients had occurred over the study period, patients who were hospitalised and in outpatient treatment would have received 29 % and 5 % more time with a doctor respectively (Table 3).

The doctors' feeling of having less time available for their patients may arise because they have fewer patients to whom they need to relate, not because they have less time for each patient. With fewer patients, the total time devoted to direct involvement with patients may decline, even though each patient in fact spends more time with a doctor, although with many different doctors. This may be unfortunate in terms of the continuity and quality of the treatment they receive.

Causes of changes in the doctors' use of time

Rosta and Aasland note a number of reasons why the doctors feel that they have less time available for working directly with patients: The doctors have been assigned tasks that previously were performed by clerical personnel, such as electronic records and speech recognition, and additional requirements for reporting and documentation (1). In a study of electronic records systems, nearly seven out of ten hospital doctors reported that this development took time away from patient treatment (9). Other studies, however, have shown that information technology has helped simplify the documentation and quality improvement efforts (10, 11). Although doctors may spend more time on documentation and quality improvement efforts, this will not impinge on their patient-oriented work, but will rather be a consequence of the fact that less time is required for working with patients.

Rosta and Aasland also pointed out that the hospital doctors' use of time is affected by the way in which tasks are distributed between different groups of health personnel, for example because doctors now perform more secretarial work (12). On the other hand, nurses have been given a more active function and in many areas they have taken over work that was previously undertaken by doctors. Most likely, this has served to free up the doctors' time for working with patients in other ways. At the same time, the number of nursing positions in the hospitals has increased at a slower pace than the number of doctors, by

13.7 % and 40.7 % respectively in the period 2003–13 (13). It would therefore be preferable to think that doctors were gradually taking over the responsibilities of nurses, not the other way round.

The doctors' working hours need to be reorganised

We may reasonably assume that the feeling of having less time available for working with patients is related to the strong increase in the number of doctors relative to the number of patients. At the same time, the doctors' employment contracts define the doctor as a daytime worker who is exempt from the Working Environment Act. Although the hospitals work around the clock, altogether 83 % of the working hours are in the daytime on weekdays, a period that accounts for no more than 24 % of the total weekly working hours (14). This skewed and impractical distribution of the doctors' working hours is detrimental for the utilisation of working hours and hospital equipment, and has negative consequences for the number of patients treated and effective resource use (12, 15, 16). Most likely, many hospital department are overstaffed during the daytime and understaffed in the evenings, at night and on weekends (14).

There is reason to assume that the current organisation of doctors' working hours is inappropriate and that significant changes to the organisation of medical services in the hospitals are called for. It is essential to take a closer look at the matters to which the doctors *actually* devote their working hours, as well as what they *ought* to be doing (17), preferably with the aid of objective, quantitative methods rather than qualitative ones.

LITERATURE

1. Rosta J, Aasland OG. Legers arbeidstid og tid til pasientarbeid i perioden 1994 - 2014. Tidsskr Nor Legeforen 2016; 136: 1355 - 9. [PubMed][CrossRef]

2. Statistisk sentralbyrå. Statistikkbanken. tabell 09544 mm. www.ssb.no (6.12.2017).

3. Samdata. Spesialisthelsetjenesten 2014. Oslo: Helsedirektoratet, 2015.

4. Røhme K, Kjekshus LE. Når tiden telles–sykehuslegers tidsbruk og arbeidsoppgaver. Tidsskr Nor Laegeforen 2001; 121: 1458 - 61. [PubMed]

5. Bratlid D. Pasientbehandling og legeressurser i en sykehusavdeling. HERO skriftserie 2013 https://www.med.uio.no/helsam/forskning/nettverk/hero/publikasjoner/skriftserie/2013/hero2013-6.pdf (6.12.2017).

6. Foss H, Skaar V, Fosshaug B et al. Hvor mye tid får pasientene? Sykepleien 2006; 94: 94 - 6.

7. Mache S, Vitzthum K, Kusma B et al. Pediatricians' working conditions in German hospitals: a real-time task analysis. Eur J Pediatr 2010; 169: 551 - 5.

[PubMed][CrossRef]

8. Samdata. Spesialisthelsetjenesten 2015. Oslo: Helsedirektoratet, 2016.

9. Den norske legeforening. Undersøkelse om elektronisk pasientjournal i sykehus. Oslo: Den norske legeforening, 2014.

10. Lium JT, Faxvaag A. Removal of paper-based health records from Norwegian hospitals: effects on clinical workflow. Stud Health Technol Inform 2006; 124: 1031 - 6. [PubMed]

11. Øvretveit J, Scott T, Rundall TG et al. Improving quality through effective implementation of information technology in healthcare. Int J Qual Health Care 2007; 19: 259 - 66. [PubMed][CrossRef]

12. Johannessen KA, Kittelsen SA, Hagen TP. Assessing physician productivity following Norwegian hospital reform: A panel and data envelopment analysis. Soc Sci Med 2017; 175: 117 - 26. [PubMed][CrossRef]

13. Samdata. Spesialisthelsetjenesten 2013. Oslo: Helsedirektoratet, 2014.

14. Bratlid D. Har legene en hensiktsmessig fordeling av arbeidstiden? Tidsskr Nor Legeforen 2012; 132: 1590 - 1. [PubMed][CrossRef]

15. Magnussen J. Utviklingen i effektivitet. I: Hansen FH, red. Sykehussektoren på 1990-tallet. Trondheim: SINTEF Unimed NIS SAMDATA, 2000: 113-21.

16. Riksrevisjonens undersøkelse av effektivitet i sykehus. Dokument 3:4 (2013-2014). https://www.riksrevisjonen.no/rapporter/Sider/Sykehus.aspx (6.12.2017).

17. Frich JC. God bruk av legers arbeidstid? Tidsskr Nor Legeforen 2016; 136: 1321. [PubMed][CrossRef]

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