醫院管理局
HOSPITAL AUTHORITY

Consultation on Doctor Work Reform
Hospital Authority

I. Beliefs of Steering Committee on Doctor Work Hour

The Hospital Authority ("HA") is committed to improving the working conditions of public hospital doctors while maintaining a high standard of care for her patients. To promote work-life balance, HA will continue to address doctors' long work hours by reducing their heavy workload and curtailing their continuous work hours to a reasonable level. It was against this background that the Steering Committee on Doctor Work Hour ("Steering Committee") was established in October 2006 to tackle these issues which would ultimately have an impact on the delivery and quality of patient care. This consultation exercise represents a move of the Steering Committee to collect feedback from the key stakeholders which will help formulate the recommendation report on Doctor Work Reform to be endorsed by the HA Board in August / September 2007.

To start with, the Steering Committee believes that Doctor Work Reform along the following key directions would address the workload issues and boost the morale of HA doctors:

a) the weekly work hours of doctors should not exceed 65 in general while those currently working for less than 65 hours should also benefit from the reform,

b) the doctors should not work continuously for more than 13 -16 hours,

c) overtime work of doctors exceeding their conditioned hours should be recognized financially,

d) manpower should be rationally increased for certain clinical specialties on a need basis, and

e) promotion of doctors should be encouraged in HA taking into consideration doctors*competency, qualifications and years of service.

II. Background and Issues

In Feb 2007, HA sent a batch of frontline clinicians, nurses and hospital managers to the UK to examine how her model achieved the new work hour arrangement under the European Working Time Directive, so that we might formulate a model that would fit the local context. Meanwhile, HA-wide studies on doctor work hours, on-call structure and call activities have shown similarity to the UK pattern. The highly intensive activities of clinical specialties, in particular those in the medical stream, are exhausting all our frontline doctors. A significant proportion of mundane and repetitive technical activities is also compromising their time and focus on core patient services. On the other hand, around 900 frontline doctors, predominantly from the surgical stream of services, are working more than 65 hours per week on average. Their too frequent on-site calls have adversely affected their quality of life, work and training. Furthermore, the excessively long continuous hours of work for the young doctors would jeopardize their clinical decision making and render patient care at risk.

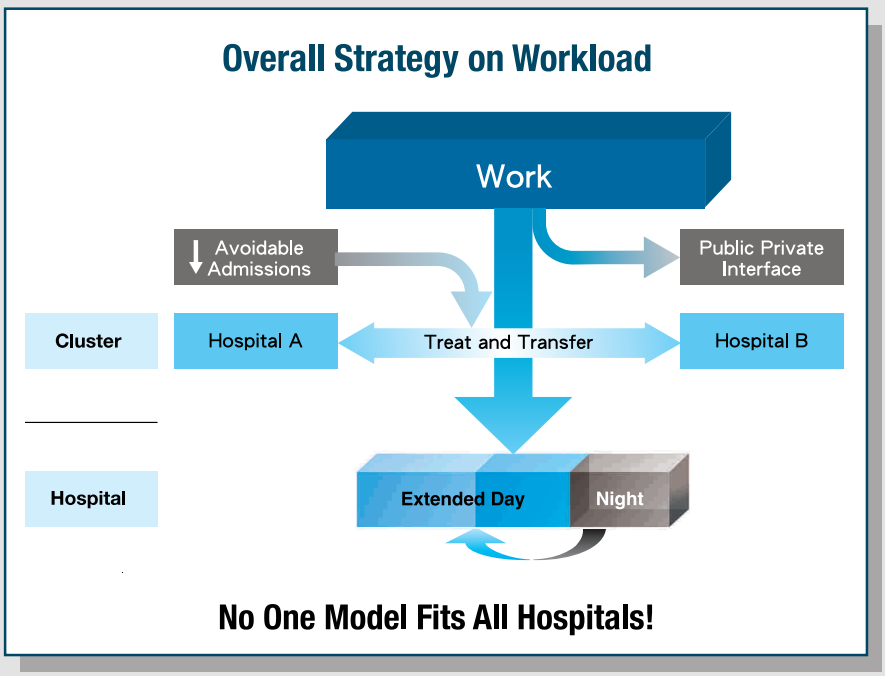
With a view to reducing the long and continuous work hours of doctors to a reasonable level, the Steering Committee has targeted to reduce, within 3 years, the work hours of doctors to not exceeding 65 per week. A number of strategies, namely, (a) optimizing total workload, (b) change in the existing doctors' work pattern and (c) targeted deployment of resources have been proposed to optimize the number of overnight on-site doctors required in each hospital without affecting patient care, reduce avoidable workload and activities as well as replace overnight calls with a shift system. HA is fully aware that different specialties vary a lot in different settings and no one model would fit all specialties and hospitals. However, it is believed that the strategies will not only relieve the frontline doctors who work for more than 65 hours per week, but in general benefit those who currently work for less than 65 hours per week as well.

This paper seeks to lay out the various strategies of doctor work reform to address the above-said issues and invites all public hospital doctors and the Hong Kong Academy of Medicine to raise feedback / suggestions for further refinement of the strategies before pilot implementation. All feedback / suggestions will be duly considered and, where appropriate, incorporated into a recommendation report on strategies which will eventually be endorsed by the Hospital Authority Board.

III. Optimizing Total Workload

HA has proposed a number of measures to optimize the total workload of doctors, viz, reducing avoidable admissions and enhancing public-private interface at the macro level, rationalizing services at both cluster and hospital levels, as well as a conceptual shift from the conventional day-night activities to a new mode of extended-day services. The overall strategies are summarized in Figure 1 below for ease of reference.

Figure 1 - Overall Strategy on Workload



Managing Workload

In the first place, to optimize the total workload at the macro level, HA will reinforce the following two strategies:

a) *Reducing avoidable admissions* - Simply put, "the future of hospitals is outside of hospital" To attain this goal, HA will continue to reinforce the gatekeeper role of Accident and Emergency Departments with more prudent application of admission criteria, and formulate clinical pathways and protocols among clinical specialties to reduce repetitive clinical activities. On the other hand, HA will continue to strengthen outreach services to old age homes and facilitate development of 24-hour primary healthcare service.

b) *Enhancing public-private interface* - This involves mainly creating additional service posts for private practitioners to help out in specialist outpatient clinic sessions, and continuously promoting development of community care in place of hospital care.

Treat-and-transfer among Hospitals

On the other hand, to optimize use of limited professional resources, HA anticipates service rationalization in the following directions. However, it must be emphasized that, instead of applying the strategies across the board, appropriate stratification of hospitals should be duly considered.

a) *Concentrating emergency services into one hospital* - This involves delineating roles of hospitals within a cluster to optimize use of limited resources, protect doctors' training and maintain the quality of patient care. Emergency cases are diverted to a designated hospital for management while other hospitals in the cluster will, in return, treat elective patients and provide sub-specialized services. Merging clinical services among cluster hospitals can reduce not only the number of on-site calls for doctors, but their average work hours per week as well. A dedicated and trained Escort Medicine team should be developed to ensure safe inter-hospital transfer of critically-ill patients. The positive clinical outcome is supported by literature.

b) *Concentrating highly sophisticated services into a few centres* - This means service networking among clusters / hospitals. This will benefit both patients (who can access the finite number of experts in the field) and the medical workforce (since the caseload will be concentrated for betterment of doctors' training in these highly specialized areas).

In this connection, stakeholders of different specialties are requested to deliberate and express views on scope (what categories of cases, when to transfer, etc.) and pace of rationalization in their respective clusters / specialties, so that the standard of patient care can be upheld and the doctors' quality hours of work and training will not be compromised.

Optimizing Night Activities in All Hospitals

Both overseas experience and local surveys have shown that the level of activities is high in the evening but falls after midnight, but this may not be fully reflected in the current staffing level in some departments of HA hospitals. Besides, patient care at night carries high risk due to scattered manpower and inadequate paramedic support at night. To optimize use of scarce resources of doctors at the hospital level, HA advocates a conceptual shift from day-night activities to a new mode of extended-day and optimized night service, that is, to draw night activities to the extended day with better manpower and facility support and to re-organize extended-day capacity to cope with service demand.

This optimized night model should be complemented by the following strategies:

a) *Restricting emergency operations after midnight* - It is suggested to reserve out-of-hour resources for life, limb and sight-threatening cases only. Currently, operations performed around midnight or in the early hours of a day are partially due to backlog of semi-urgent cases not finished during the day. Surgeons operating during these hours may render patient care at risk. From the UK experience, reduction in night-time operation can not only minimize risks, but also reduce the frequency of call upon middle grade surgical staff during the night, despite the continual need for surgical opinion. Besides, there are opportunities to redesign anaesthetic cover at night as well.

b) *Establishing emergency medicine / admission wards* - Ample literature has shown that introduction of emergency medicine / admission wards can reduce patient admission and concentrate emergency activities and resources into one area. Continual patient care is assured while repetitive clerking for patients in clinical wards is reduced at night. The overall work efficiency will be improved with minimal disruption to other hospital services. This measure is beneficial to many patients with improved safety, minimized length of stay and reduced unnecessary admissions. It also curtails the necessary number of on-site doctors required to man the overnight service. However, to make this strategy a success, we need to sort out the resource implications, improve the competency of emergency staff and revisit the admission and care protocols among different specialties.

c) *Extending the roles of non-medical staff* - Appropriately trained non-medical staff, like phlebotomists, can take up certain activities which are more technical in nature and currently taken up by the frontline clinicians at the expense of other core medical services for truly needy patients. This would particularly ease doctors' workload and may lessen the number of on-site doctors required over the night. Career development opportunities are thus opened for non-medical staff and doctors can truly re-focus themselves on medical activities and be engaged more in professional training, thereby improving patient care and safety. On the other hand, we shall explore the development of nurse clinics, extend the roles of paramedics in caring for chronic patients, study the feasibility of implementing triage clinics during the extended day and identify ways to ensure effective delivery of patient care under the optimized night model.

d) *Reinforcing overall system support and efficiency* - To support the extended day and optimized night model, protocol-driven 24-hour CT and MRI for critical patients with therapeutic implications will be advocated. Besides, tele-radiology for off-site consultation will be developed and more options of mobile text- and voice-communication tools explored. Development of a clinical decision support system is also worthwhile to make the whole operation run more effectively in the long run.

IV. Change in Existing Doctors' Work Pattern

To address the long working hours of doctors while maintaining quality patient care and safety, HA will consider the following strategies:

a) *Competency-based call teams* - Under the conventional system of work, a pool of doctors are put on call to handle clinical duties in their respective specialties at night. To better utilize the stringent manpower and ensure patient safety and quality of care whilst not compromising doctors' training, it is proposed to build multi-disciplinary and competency-based call teams to take care of night-time emergency admissions and other clinical duties. This can be implemented in phases. Initially, sub-specialty call duties can be covered by doctors on general call in the same specialty. Further development will be in consultation with staff and the Hong Kong Academy of Medicine. Phased training on core competencies will also be required before full implementation of the competency-based call teams. As the number of doctors, hence on-call frequency, is reduced, their long weekly work hours will also be curtailed. These call teams will be supported by appropriately trained non-medical staff, who will take up from doctors certain basic and easy-to-administer clinical procedures. Off-site call specialists will also be ready to provide support for any consultations required during the night.

b) *Handover system* - An effective handover system involving different disciplines is crucial to maintain continuity of care, good clinical practice and enhanced patient safety. From what we have learnt from overseas countries, handover system ensures that all acutely unwell and at-risk patients in the hospital are known to the seniors. Early review of these patients can prevent subsequent deterioration over the night and reduce mishaps of critical incidents and the overall workload. Young doctors participating in an effective handover process and under adequate supervision also experience a high-quality training opportunity. We shall identify our staff competencies and training needs and develop appropriate protocols to facilitate their work. We are surely aware that the mode of operation varies in different clinical settings / hospitals but it will evolve over time.

c) *Shift replacing on-call duty* - It is generally unacceptable for doctors to work continuously for 36 hours, despite some intermittent rest periods during the on-call period. Some specialties opt for an on-call system covering 24 hours of service whilst others choose a partial shift system, like those adopted in Australia (max. 16 hours per shift) and the UK (max. 13 hours per shift). Clinicians of different specialties are requested to evaluate the different shift / on-call patterns and suggest one that best suits their operational need.

The potential impacts of the afore-mentioned strategies on reducing the weekly and continuous work hour of doctors are summarized in Table 1 below.

Table 1 - Impact of Doctor Work Reform on Weekly and Continuous Work Hour

Doctor Work Reform Strategies	Weekly Work Hour	Continuous Work Hour
1. Managing workload	👍	👍
2. Treat and transfer among hospitals	👍	👍
3. Optimizing night activities in hospitals	👍	👍
4. Restricting emergency operations after midnight	👍👍 Surgical stream	👍👍 Surgical stream
5. Emergency medicine / admission wards	👍	👍
6. Extending roles of non-medical staff	👍👍	👍
7. Competency-based call team	👍👍	👍
8. Shift replacing on-call duty with handover	👍	👍👍👍

V. Targeted Deployment of Resources

The doctor work reform is not without resource implication. On the whole, additional resources need to be deployed to pressure areas. On the other hand, partial savings may be generated from the various service rationalization initiatives and set-up of competency-based call teams in hospital clusters. Depending on the prevailing conditions and design of operation mode in different specialties, the exact resource implication is yet to be reckoned. However, according to overseas experience, doctor work reform will improve patient care in the long run.

VI. Training & Remuneration

HA seeks to enhance the quality of professional training whilst not compromising service quality in all doctor work reform initiatives. Long continuous work hours and frequent night calls would definitely exhaust our trainee doctors and reduce their learning effectiveness; and overseas studies have show that sleep deprivation is risky as it impairs both performance and hence skill retention. Besides, learning by chance during on-call period is far from satisfactory to the young doctors. It is therefore proposed to provide more structured day-time training for fresh doctors using simulation or scenario models. In fact, some frontline doctors have voiced out the need to enhance staff development by introducing protected time for training; and the new training model in the UK also advocates training of doctors during the day for requisite skills and protocols. On the other hand, HA will see if more

part-time service posts can be created to lessen the burden on our trainee doctors so that their training opportunities can also be maximized.

HA well recognizes the excessive long and unsocial hours of work of the frontline doctors. An overall remuneration plan should therefore be developed, aiming to induce reduction of unnecessary activities / calls, hence work hours, and redress their long unsocial hours during shift / on-call duties. Suggestions have been received to introduce a "more pay for more work" remuneration system, with pre-determined rate and payable sums, which is able to differentiate the long and unsocial hours of work. This is in line with the belief of the Steering Committee. The new pay system should also discourage the management from over-rostering doctors and refrain from inducing doctors to lengthen their work hours.

VII. What and How Hours are Counted?

There are diverse views as to what, how and how much should be counted as doctors*work hours; and some have objected to setting 65 hours per week as an interim target of the doctor work reform. It is proposed to count weekly work hour as an average over a period of 26 working weeks (vacation leave discounted) to minimize the administrative inconvenience to doctors. However, to uphold fairness for doctors who are under short term clinical rotation, this period may be adjusted down to 10 weeks. There is general consensus that meal time, rostered on-site hours and administrative work should be fully counted while off-site duties and structured training should be partially counted. Yet, some have advocated allocating 10-20% of work hours for structured training, fully counting travel time and partially counting non-structured training in the calculation of work hours. However, views over this proposal vary much and stakeholders are invited to express views in these matters.

HA is well aware that prolonged continuous work is not only undesirable to maintain quality hours of doctors in work, life and training, but also unsafe in patient care. It is generally agreed that the current 32-36 hours of continuous work should be reduced. Proposals are received to cap the continuous on-site work hours, define the allowable number of shifts / calls per week and conduct a fair and open assessment of doctors' workload which should take into account work intensity, complexity and quality expectation of doctors in different specialties. Moreover, solutions should be sought to attain the ultimate aim that serving doctors should not be worse off under the new work hour arrangements. The platform is open to all stakeholders to further deliberate on these issues as well.

To address the issue of long continuous work hour, different models are proposed, like those adopted in Australia (max. 16 hours per shift) and the UK (max. 13 hours per shift) as afore-mentioned. One option is to cap the continuous work hours at 13-14 per shift with a rest period of not less than 11 hours between shifts, and to set a maximum of 3-5 consecutive shift duties for each doctor. Another option is to provide protected sleep during the conventional on-call period, where other on-site doctors would cover one another such that their continuous work hours would not be more than 13-14 at one go. Yet, we appreciate the differences among specialties and are open for them to take work patterns that best suit their own operational needs. Proposals are therefore invited for viable and sustainable solutions for individual departments with a view to reducing doctors' continuous work hours to a reasonable level without compromising patient care and service quality.

VIII. Consultation Timeline & Your Feedback

Table 2 below shows the timeline of consultation before pilot implementation of the doctor work reform in a cluster:

Table 2 - Doctor Work Reform Consultation Timeline

Date	Programme
Apr / May 2007	• Communication sessions on Doctor Work Reform with all clinical departments • HA-wide consultation with all HA doctors and the Hong Kong Academy of Medicine
Jun / Jul 2007	• Strategy refined according to consultation feedback and manpower / resource implications • 4th Steering Committee to produce draft recommendation report on DWR strategies
Jul / Aug 2007	• Draft report for comments by 2 Advisory Committees
Aug / Sep 2007	• 5th Steering Committee to finalize and submit recommendation report to the HA Board

To render the doctor work reform a success, buy-in of stakeholders at all levels is utmost important. To make the various initiatives truly benefit public hospital doctors and ultimately the patients, we highly value your precious feedback. All opinions received will be duly considered, and the feasibility and financial sustainability of the suggestions will be taken into account in formulating longer-term solutions and implementation plan, so that the long work hour issue of public hospital doctors can be duly addressed and the quality of patient care further improved.

We sincerely enlist your active participation and earnest discussion of the doctor work reform initiatives.

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Steering Committee on Doctor Work Hour
May 2007