Executive Summary

Direct Investigation
Conveyance of Patients by Ambulance to "Area Hospitals"

Background

Ambulance service for conveying patients to the accident and emergency departments of hospitals is the responsibility of the Fire Services Department ("FSD").

2. FSD and the Hospital Authority ("HA") have agreed to divide the territory into 20 areas (hereinafter called "catchment areas"). FSD ambulances must take patients to the designated hospitals or clinics within the hospital catchment areas (hereinafter called "area hospitals") where they are in.

3. Nevertheless, an area hospital may not necessarily be the hospital nearest to the location of a patient. There are concerns that the current fixed rule for ambulancemen to take patients even "in critical condition" (e.g. cardiac arrest or serious respiratory distress) to area hospitals may lead to serious consequences because of delay caused by longer travel time.

4. This direct investigation aims at examining the current arrangements for conveying patients in critical condition to an area hospital, with a view to identifying any inadequacies and room for improvement.

Our Findings

Rationale for Conveyance to Area Hospital

5. According to FSD and HA, the current arrangements of conveying patients to the area hospital are made with the "best interests" of patients in mind. The best interests of patients mean that patients can receive "total patient care", which includes proper pre-hospital first aid and conveyance to the nearest appropriate hospital for treatment within the shortest possible time. In devising the current demarcation of catchment areas and the procedure of taking patients to area hospitals, the scale, equipment and intake capacity of the hospitals are the main factors for consideration. Travel distance and travel time, or the local traffic condition are neither the only nor the most important factors for consideration in devising the current plan.

6. Accordingly, whether in critical condition or not, patients will be taken by ambulance to the area hospital, except in special circumstances such as:

Large-scale accidents	- Divert to different hospitals
Severe trauma	- Convey to hospitals with appropriate equipment and capacity
Traffic diversion or road congestion	- Convey to other hospitals

Examples of "Area Hospital Not Being Nearest Hospital"

7. We have studied the 22 complaint cases received by FSD over the past three years as well as the Department's documentary exchanges with HA. We found examples, on Hong Kong Island, in Kowloon as well as in the New Territories, which show that the area hospital may not be the nearest hospital (for details, see **Chapter 3** of Investigation Report). In one case, the travel time to the area hospital was 10 minutes longer than to the nearest hospital. FSD had proposed to adjust the boundaries of catchment areas. However, the Department eventually agreed with HA to maintain the existing demarcation on grounds of medical resources and hospital service capacities, etc.

Expert Opinions

8. We have sought the views of our medical advisers, a local medical association, local medical practitioners and a local patients' organisation. They held that patients in critical condition (including those having severe heart attack and severe allergic reaction) should be taken to the nearest hospitals for treatment as soon as possible to prevent fatal results.

Responses from FSD and HA

9. **HA** indicated that for patients having cardiac arrest, the most important thing to do is to apply cardiopulmonary resuscitation within the first 5 minutes of the arrest. It is in principle feasible to take such patients to the nearest hospital rather than the area hospital. Nevertheless, HA maintained that on the whole, the current system ensures that patients receive total patient care, which is in their best interests.

10. **FSD** argued that if ambulancemen were allowed to make their own judgement on whether a patient is in critical condition, it might leave members of the public confused and give rise to complaints, as assessment by different ambulancemen might vary. The quality of emergency call service might also be adversely affected. Furthermore, given the current level of medical skills of frontline ambulancemen and ambulance equipment, FSD could not be sure that patients in critical condition could be quickly and accurately identified in varying work situations.

Our Comments

Inadequate Attention to Patients in Critical Condition under the Current System

11. Under the current system, the scale, equipment and intake capacity of hospitals form the basis for the demarcation of catchment areas. Ambulancemen are merely required to follow some simple pre-set instructions in carrying out their duties. They do not need to make a lot of judgement on a patient's condition.

12. However, the system may result in several minutes' delay in conveyance of patients. While such delay may not make much difference to most patients, its impact on **patients in critical condition** could be very significant.

13. We are aware that no adjustment of the boundaries of catchment areas could possibly make all "area hospitals" the nearest ones for any location in each catchment area. Nevertheless, we consider it possible to keep the current system basically unchanged but make special arrangements to identify **patients in critical condition** and take them to the nearest hospital in terms of travel time so as to meet their most urgent need to receive medical treatment.

Arguments that Special Arrangements would Affect Service Standards and that Ambulancemen are not Capable of Identifying Patients in Critical Condition can Hardly be Justified

14. FSD argued that any special arrangements might affect the service standards and that ambulancemen are not capable of accurately identifying patients in critical condition. We believe that there should be a solution to the problem. With adequate training and clear guidelines, frontline ambulancemen should be able to identify patients in critical condition and there should not be too much deviation in their assessment.

15. Even when ambulancemen are not totally certain whether a patient is in critical condition, they could simply adopt the "minimal risk approach" and take the patient to the nearest hospital. Surely, that would do more good than harm.

16. HA statistics show that, of the patients taken to the accident and emergency departments of hospitals by ambulance in the past three years, only about 4% were identified at the hospital to be in "critical condition". We believe that even if all patients in critical condition were taken to the nearest hospitals, that would not have a major impact on the workloads and intake capacities of any particular hospitals.

Our Recommendations

17. The Ombudsman urges FSD and HA to:

(1) provide special arrangements under the current system: where the area hospital is not the nearest one, patients in critical condition should be taken to the nearest hospital;

(2) provide proper training and draw up clear guidelines for frontline ambulancemen, including a definition of patients in critical condition, to facilitate implementation of the measure in (1) above; and

(3) set up a regular review mechanism and maintain contact with various stakeholders (including frontline ambulancemen), so as to gradually introduce the measures in (1) and (2) above.

18. FSD and HA have generally accepted the above recommendations. They agree to start with the cases of "cardiac arrest" and "respiratory arrest" which are more identifiable. There will initially be a special arrangement for such patients to be taken to the nearest hospital. FSD agrees that as frontline ambulancemen acquire more experience and/or are given the necessary diagnostic equipment, the Department would extend the special arrangement to include more types of critical condition and allow such patients to be taken to the nearest hospital as well.

Concluding Remarks

19. We appreciate the difficulties faced by frontline ambulancemen and that it takes time for the management to change the long-established work methods and practices. As can be seen from their responses in the paragraph above, FSD and HA have at least taken a step forward regarding the conveyance of patients in critical condition. Nevertheless, patients in critical condition are not limited to those having "cardiac arrest" or "respiratory arrest". The Ombudsman urges FSD and HA to conduct regular reviews and strive to provide frontline ambulancemen with the necessary equipment, training and guidelines so that ultimately all patients in critical condition will be taken to the nearest hospital for emergency treatment as far as practicable.

Office of The Ombudsman
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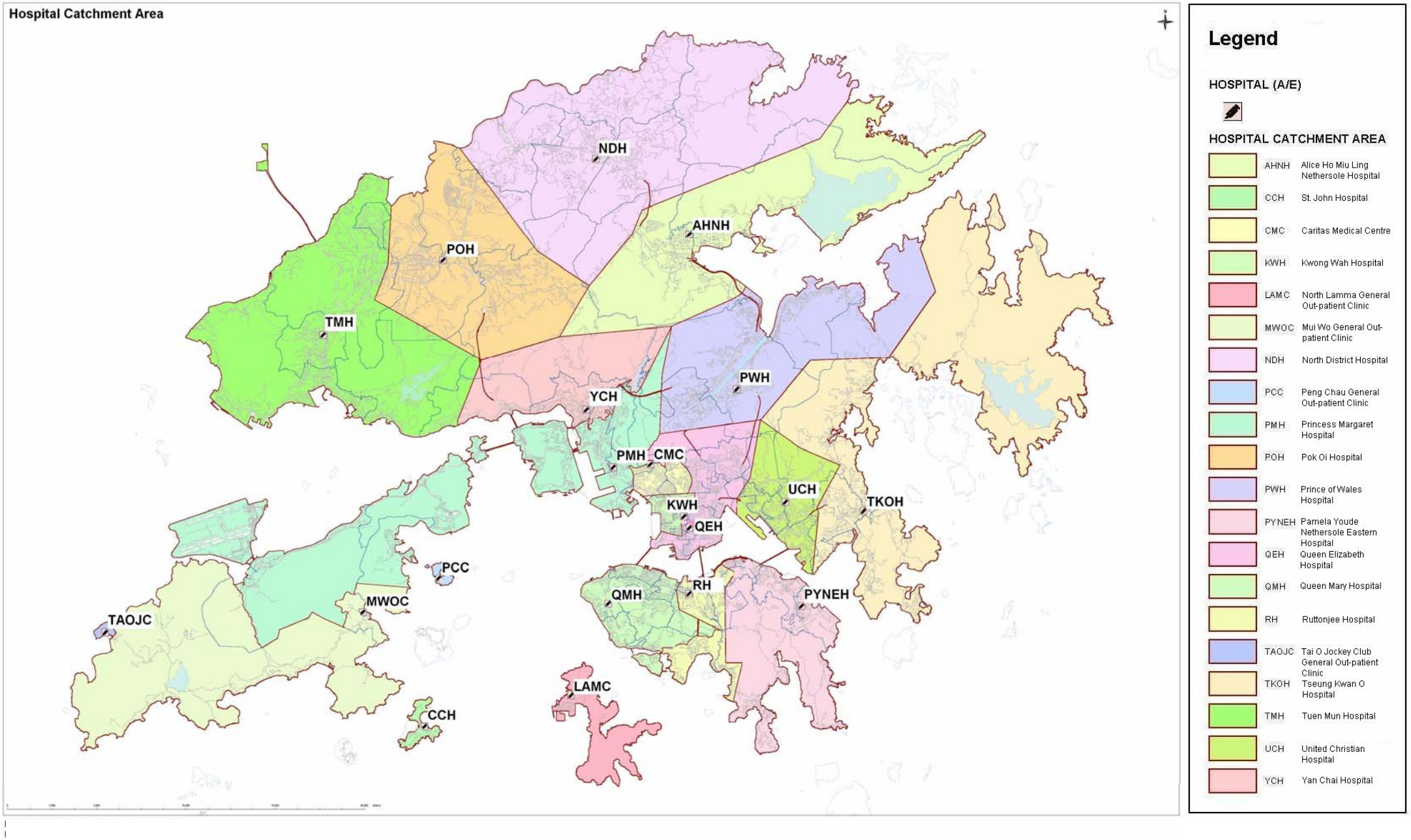
Hospital Catchment Area
NDH
AHNH
POH
TMH
YCH
PWH
PMH
CMC
UCH
TKOH
KWH
QEH
PCC
MWOC
QMH
RH
PYNEH
TAOJC
LAMC
CCH
Legend
HOSPITAL (A/E)
HOSPITAL CATCHMENT AREA
AHNH Alice Ho Miu Ling Nethersole Hospital
CCH St. John Hospital
CMC Caritas Medical Centre
KWH Kwong Wah Hospital
LAMC North Lamma General Out-patient Clinic
MWOC Mui Wo General Out-patient Clinic
NDH North District Hospital
PCC Peng Chau General Out-patient Clinic
PMH Princess Margaret Hospital
POH Pok Oi Hospital
PWH Prince of Wales Hospital
PYNEH Pamela Youde Nethersole Eastern Hospital
QEH Queen Elizabeth Hospital
QMH Queen Mary Hospital
RH Ruttonjee Hospital
TAOJC Tai O Jockey Club General Out-patient Clinic
TKOH Tseung Kwan O Hospital
TMH Tuen Mun Hospital
UCH United Christian Hospital
YCH Yan Chai Hospital