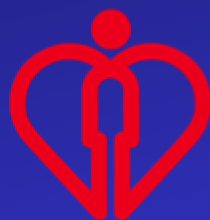

Emergency Medicine Ward Service – the Present and Future

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Emergency Medicine Ward

- New in-patient service in Hospital Authority 2007, as part of Doctor Work Reform
- Targeted towards selected acute clinical conditions that will benefit from this model of care within a short time frame, preferably within 48 hours

Work Hours
Doctor
Work Reform
Workload
Quality Care
Patient Safety
Teamwork
Quality Hours

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Emergency Medicine Ward

Objectives

- Patients under care will undergo integrated multi-disciplinary collaboration with different clinical specialties, community / psychiatric nursing and allied health support
- Will help reduce admissions to wards thus helping to rationalize the hospital in-patient service at night time

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Essential Elements for Success of EM Ward

- Competent staff for EM ward operation and patient management (cultural change in staff acceptance of new mode of service)

- Clinical Guidelines / research-based care with integrated clinical pathways to align practice in patient management

Work Hours
Doctor
Work Reform
Workload

Quality Care
Patient Safety
Teamwork
Quality Hours

Work Hours
Doctor
Work Reform
Workload

Progress

- QEH 17 Jan 2007 40 beds (6.5%)
- TMH 17 Jan 2007 30 beds (4.8%)
- PYNEH 10 May 2007 20 beds (4.9%)
- POH 19 Sep 2007 30 beds
- PWH 02 Oct 2007 26 beds (6.5%)
- CMC 02 Nov 2007 34 beds (8.9%)
- PMH 05 Nov 2007 32 beds (8.8%)

( ) = % of A&E daily attendance in 2007

Quality Care
Patient Safety
Teamwork
Quality Hours

Multi-disciplinary Collaboration

QEH
- Designated CGAT specialist: 2 rounds during weekdays
- On call Med Specialist: 2 rounds daily
- Surgical team: Ad-hoc consultation

TMH
- Med: 3 rounds daily (for designated cases recorded by CMS)
- 1st call O&T doctor to attend EM case

PYNEH
- Designated Ambulatory Care Physician: 2 rounds daily

Multi-disciplinary Collaboration

CMC

- CGAT: 1 round daily in weekdays

PMH

- Med: 2 rounds daily

POH

- Surgical stream: Non-urgent consultation

PWH

- No regular arrangement

EM Ward Task Group (HAHO)

Roles and functions:

- To collate and analyze data in relation to implementation of EM Ward at pilot sites
- To share the best practice of EM Ward implementation and operation
- To evaluate and review the pilot EM Ward initiative (in particular the role of observational medicine, patient spectrum and collaboration with other disciplines)
- To produce a guidebook for reference among A&E departments
- To recommend the road map for implementation of the EM Ward initiative to other HA hospitals

Emergency Medicine Ward

The Current Status

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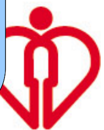
Total A&E Attendance in HK

Compared with 2006 ⇒ 2.4% increase in 2007 & 5.3% increase in 2008

No. of A&E first attendances (y-axis: 120,000 – 200,000)

Month	2006	2007	2008
Jan	163,947	169,731	164,142
Feb	144,685	156,439	166,612
Mar	162,636	168,337	180,104
Apr	154,598	163,718	
May	162,887	168,597	
Jun	173,483	166,667	
Jul	171,085	174,967	
Aug	158,636	159,939	
Sep	158,968	162,085	
Oct	168,629	166,744	
Nov	159,415	161,819	
Dec	166,149	172,620	



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Total A&E M&G Admissions in HK

(Including all A&E with or without EM Ward Admissions)

Compared with 2006 ⇒ 2.8% increase in 2007 & 13.8% increase in 2008

No. of A&E admissions

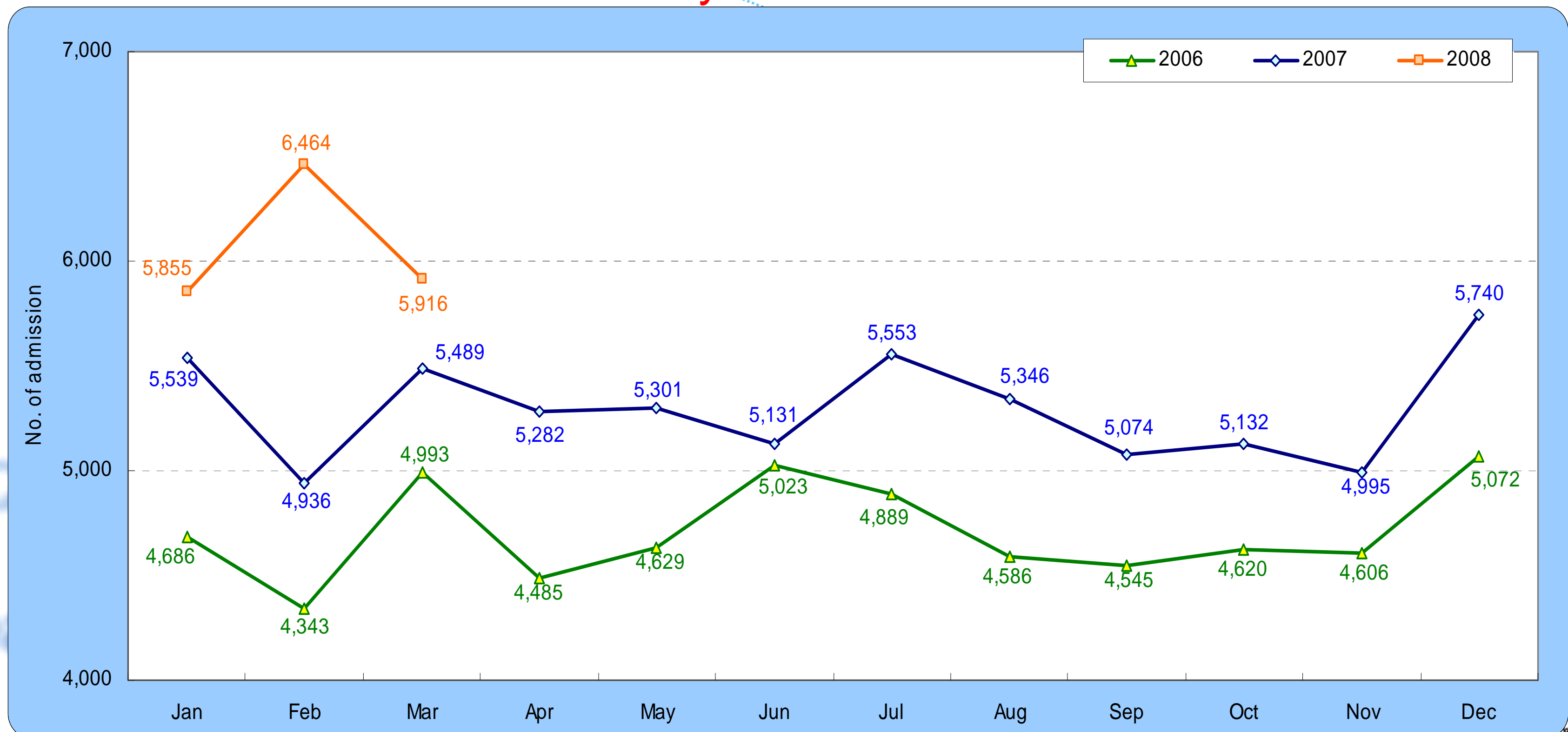
Month	2006	2007	2008
Jan	21,719	24,091	23,070
Feb	19,832	21,428	25,824
Mar	22,458	23,413	24,599
Apr	20,879	22,329	
May	21,614	22,371	
Jun	22,411	22,401	
Jul	22,385	23,205	
Aug	21,633	21,977	
Sep	20,718	20,799	
Oct	21,599	21,005	
Nov	20,846	20,558	
Dec	22,742	22,411	

* Including all AEDs with or without EM Ward admission

Total A&E M&G Admissions from 3 Major Hospitals (without EMW)

Compared with 2006

- A&E attendance increased by 0.2% in 2007 & 0.8% in 2008
- M&G admission increased by 12.5% in 2007 & 29% in 2008



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Total A&E M&G Admissions
Caritas Medical Centre (34 beds, 8.9%)

↓ 27.2%

No. of A&E admissions*

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2006	1,505	1,403	1,658	1,475	1,412	1,520	1,749	1,642	1,575	1,593	1,613	1,777
2007	1,785	1,502	1,668	1,572	1,587	1,667	1,746	1,606	1,557	1,499	1,107	1,206
2008	1,166	1,323	1,276									

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Total A&E M&G Admissions
Princess Margaret Hospital (32 beds, 8.8%)

↓ 8.8% (13.6% if Feb and Mar 2008 not counted)

No. of admission

Month	2006	2007	2008
Jan	1,916	1,919	1,696
Feb	1,674	1,706	1,811
Mar	1,941	1,961	1,857
Apr	1,814	1,834	
May	1,971	1,766	
Jun	1,810	1,809	
Jul	1,904	1,926	
Aug	1,822	1,784	
Sep	1,719	1,712	
Oct	1,873	1,695	
Nov	1,844	1,596	
Dec	1,928	1,623	

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Total A&E M&G Admissions
Pamela Youde Nethersole Eastern Hospital

(20 beds, 4.9%)

↓ 4.8% (9% if Feb & Mar 2008 not counted)

No. of A&E admissions*

Month	2006	2007	2008
Jan	1,790	1,978	1,769
Feb	1,710	1,697	2,064
Mar	1,790	1,864	2,042
Apr	1,792	1,816	
May	1,841	1,703	
Jun	2,021	1,789	
Jul	1,848	1,855	
Aug	1,722	1,632	
Sep	1,771	1,551	
Oct	1,877	1,577	
Nov	1,689	1,556	
Dec	1,900	1,708	

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Total A&E M&G Admissions
Tuen Mun Hospital (30 beds, 4.8%)

No. of admission

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2006	2,221	2,062	2,352	2,109	2,268	2,368	2,237	2,197	2,114	2,202	2,098	2,316
2007	2,453	2,233	2,459	2,337	2,523	2,382	2,385	2,269	2,020	1,761	1,904	2,249
2008	2,277	2,617	2,448									

POH

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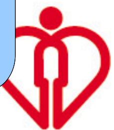
Total A&E M&G Admissions
Queen Elizabeth Hospital (40 beds, 6.5%)

No. of A&E admissions*

Month	2006	2007	2008
Jan	2,552	2,635	2,667
Feb	2,322	2,299	2,936
Mar	2,517	2,571	2,777
Apr	2,443	2,396	
May	2,403	2,434	
Jun	2,597	2,447	
Jul	2,600	2,474	
Aug	2,537	2,456	
Sep	2,219	2,279	
Oct	2,309	2,230	
Nov	2,133	2,256	
Dec	2,515	2,537	



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Total A&E M&G Admissions (QEH 01-02)

(Including Direct Admissions from Both A&E and Observation Ward)

Comparing 2002 with 2001

↓4% A&E attendance but ↓14.7% M&G admission

Month	2001	2002
Jan	2,944	2,830
Feb	3,035	2,626
Mar	3,351	2,681
Apr	3,095	2,611
May	3,180	2,741
Jun	3,193	2,635
Jul	3,235	2,585
Aug	3,204	2,352
Sep	2,886	2,326
Oct	2,751	2,360
Nov	2,486	2,378
Dec	2,574	2,537

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Total A&E M&G Admissions
Prince of Wales Hospital (26 beds, 6.5%)

Month	2006	2007	2008
Jan	1,293	1,388	1,284
Feb	1,166	1,328	1,450
Mar	1,329	1,328	1,460
Apr	1,284	1,310	
May	1,302	1,409	
Jun	1,329	1,337	
Jul	1,285	1,304	
Aug	1,264	1,290	
Sep	1,173	1,223	
Oct	1,272	1,301	
Nov	1,243	1,322	
Dec	1,382	1,308	

No. of admission

New Perspectives of EMW

Work Hours
Doctor
Work Reform
Workload

- Effective use of hospital resources to cope with increasing patient load when hospital occupancy is already very high (may be up to 130% during "peak seasons)
- "Avoidable admissions" >> efficient and effective patient management without generating subsequent workload
- Reduced hospital admission >> reduces frontline doctor workload >> Doctor Work Reform

Quality Care
Patient Safety
Teamwork
Quality Hours

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Success Criteria

- ⇓ A&E admissions (excluding EMW)
  - ⇓ A&E admissions into medical ward
- ⇓ admissions of special patient categories
  - Drug overdose / toxicology
  - Psychiatric (Medical) admission
- Sustainability
- Safe and no increase mortality or re-attendance rate

Variability of Results

- Different scales of A&E service before implementation of EMW
  - A&E
  - Observation Ward
  - EMW
- Critical mass (number of beds in EMW)
  - 8-10%
- EMW Casemix

Essentials for Effective & Efficient EMW Service

- No. of beds: about 8 – 10% of A&E attendance
- Manpower
  - e.g., for a 32-bed EM ward, the optimal workforce on AM/PM/Night shifts would be:
    - Doctors: 2 / 2 / 0.5 (with specialist on site)
    - Nurses: 5 / 5 / 2-3 (if enhanced night admission)
    - Supporting staff: 3 / 3 / 1
    - Ward clerk: 1 / 1 / 0

Essentials for Effective & Efficient EMW Service

- Essential equipment (e.g., vital sign monitors, USG)
- Access to diagnostic investigations
- Collaboration with other specialities
  - Mandate from hospital management and other specialties for mode of service
  - Appropriate experienced staff to take consultation / round

Monitoring Parameters

1. No. of patient admission to EM Ward
2. No. of lateral transfer of patients from EM Ward to other clinical specialties
3. No. of emergency admission to other clinical specialties
4. Patients' length of stay in EM ward
5. Mortality rate in EM ward
6. Re-attendance to A&E
7. Critical incident rate in EM ward

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Future Strategy

- Adequate bed number vs. involvement of surgical specialties (Surg / O&T)
- Different models with respect to nature of hospital (large, medium, small), Optimization of resources
  - night call team
  - Direct transfer from EMW to rehab. hospital
- Diagnostic support
  - CT scan (abdomen, chest)
  - USG (DVT)
  - OGD (intractable epigastric pain)

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