

The First Study of Critical Pathways for Organ Donation in Hong Kong

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Objectives

- Each year there are around 40,000 record deaths in HK
- There are only 40-50 organ donors per year

Where did our donors go?

How did we lose them?

Methodology



- Systematic approach attempted to understand the **real** donor potential & actual **performance** of deceased organ donation activities within HA donor hospitals
- Retrospective death review in 3 major referral areas of 4 donor hospitals
- The Critical Pathways for Organ Donation was developed and used as main tool for the study
- Results analyzed in hierarchical basis

Data Analysis



QMH 2013-16



QEH 2015-16



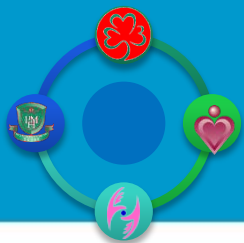
PMH 2016



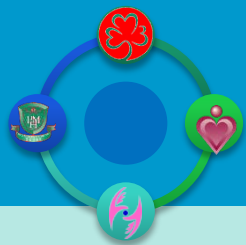
TMH 2016



Results (Analysis)



| | | ICU | NS | MED | Total |
|---|---|-------|-------|---------|---------|
| All Record Deaths | Non-ventilated deaths → | 1,150 | 527 | 10,746 | 12,423 |
| | | (215) | (146) | (8,511) | (8,872) |
| Ventilated Deaths | Ventilated deaths without Brain Injury → | 935 | 381 | 2,235 | 3,551 |
| | | (772) | (27) | (1,845) | (2,644) |
| Ventilated Deaths with Brain Injury | Ventilated deaths with BI of age > 75 → | 163 | 354 | 390 | 907 |
| | | (25) | (129) | (198) | (352) |
| | Ventilated deaths with Medical Contraindications | (56) | (67) | (66) | (189) |
| PDs with clinical cond. to fulfill BD criteria | Failure for Various Reasons → | 82 | 158 | 126 | 366 |
| | | (53) | (141) | (121) | (315) |
| Actual Donors | → | 29 | 17 | 5 | 51 |
| Utilized Donors | → | 29 | 17 | 4 | 50 |



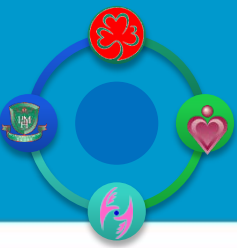
Categorization of 315 PDs fail to become UD



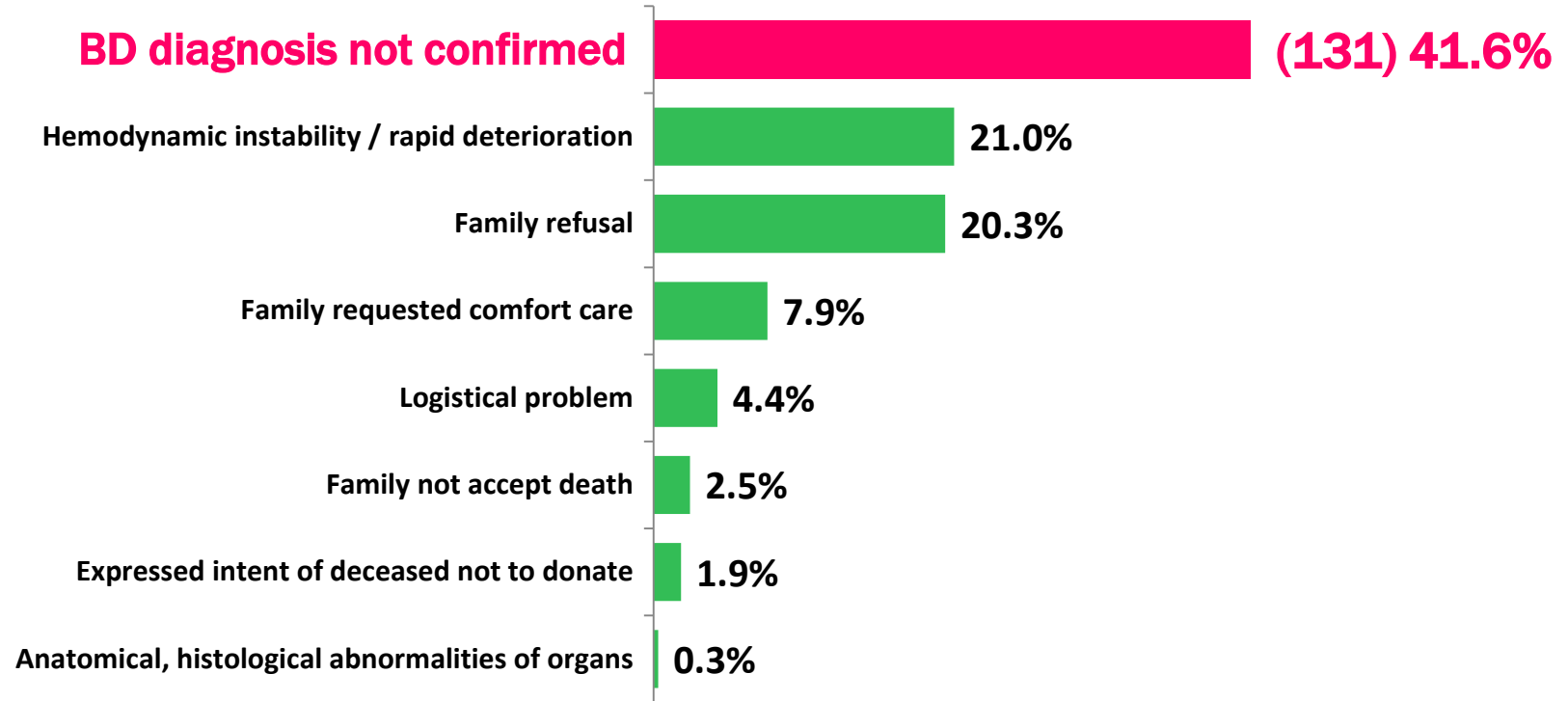
| | ICU | NS | MED | Total |
|---|-------------------|-------------------|-------------------|--------------------|
| Failure Reason | N=53 | N=141 | N=121 | N=315 |
| Reasons why a PD does not become a UD | N (%) | N (%) | N (%) | N (%) |
| (S) System | | | | |
| -S1: % BD diagnosis not confirmed/PDs | (14) 26.4% | (56) 39.7% | (61) 50.4% | (131) 41.6% |
| -S2: % Logistical problems/PDs | (1) 1.9% | (6) 4.3% | (7) 5.8% | (14) 4.4% |
| -S3: % Lack of appropriate recipient/PDs | 0 | 0 | 0 | 0 |
| (D) Donor/Organ | | | | |
| -D1: % Hemodynamic instability or rapid deterioration/PDs | (20) 37.7% | (20) 14.2% | (26) 21.5% | (66) 21.0% |
| -D2: % Anatomical, histological and/or functional abnormalities of organs/PDs | 0 | 0 | (1) 0.8% | (1) 0.3% |
| -D3: % Inadequate perfusion of organs or thrombosis/PD | 0 | 0 | 0 | 0 |
| (F) Family | | | | |
| -F1: % Family requested comfort care/PDs | (2) 3.8% | (9) 6.4% | (14) 11.6% | (25) 7.9% |
| -F2: % Family not accepted death/PDs | (2) 3.8% | (4) 2.8% | (2) 1.7% | (8) 2.5% |
| (P) Permission (Approach) | | | | |
| | N=43 | N=63 | N=15 | N=121 |
| -P1: % Expressed intent of deceased not to be a donor/Approach | (1) 2.3% | (5) 7.9% | 0 | (6) 5.0% |
| -P2: % Relative's refusal of permission for organ donation/Approach | (13) 30.2% | (41) 65.1% | (10) 66.7% | (64) 52.9% |

Deaths Statistics Analysis with Failure Reasons

**Among 315 cases, there were 87 (27.6%) cases failed to identify / refer*



Analysis of Failure Reasons of 315 Potential DBD Donors



Conclusion & Recommendations



- Enhance frontline knowledge on donor management and family communication on EOL care
- Adopt a Proactive Alert System (PAS)
- ICU admission or outreach team to support potential organ donor through to brain death

Each hospital should employ own strategy based on the review findings

Thank you!

