Workshop on emerging Multidrug Resistant Organisms (MDROs)

Organised by Infectious Disease Control Training Centre, Hospital Authority/ Infection Control Branch, Centre for Health Protection & Chief Infection Control Officer's Office, Hospital Authority

Control of VRE outbreak: local experience (I)

Vincent CC Cheng
MD (HK), MRCP (UK), FRCPath
Clinical Microbiologist & Infection Control Officer
Queen Mary Hospital

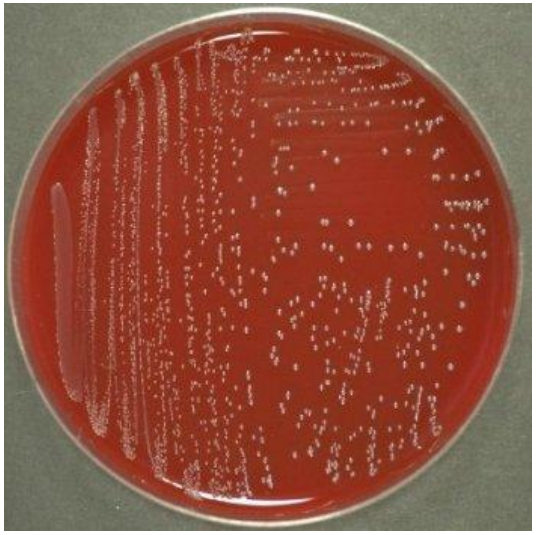
What is Enterococci ?

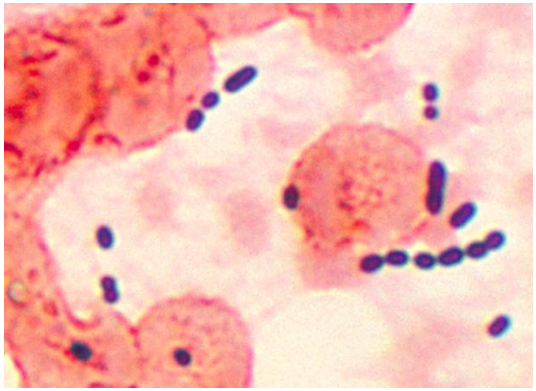
Normal colonizers of digestive tract in humans and many animals

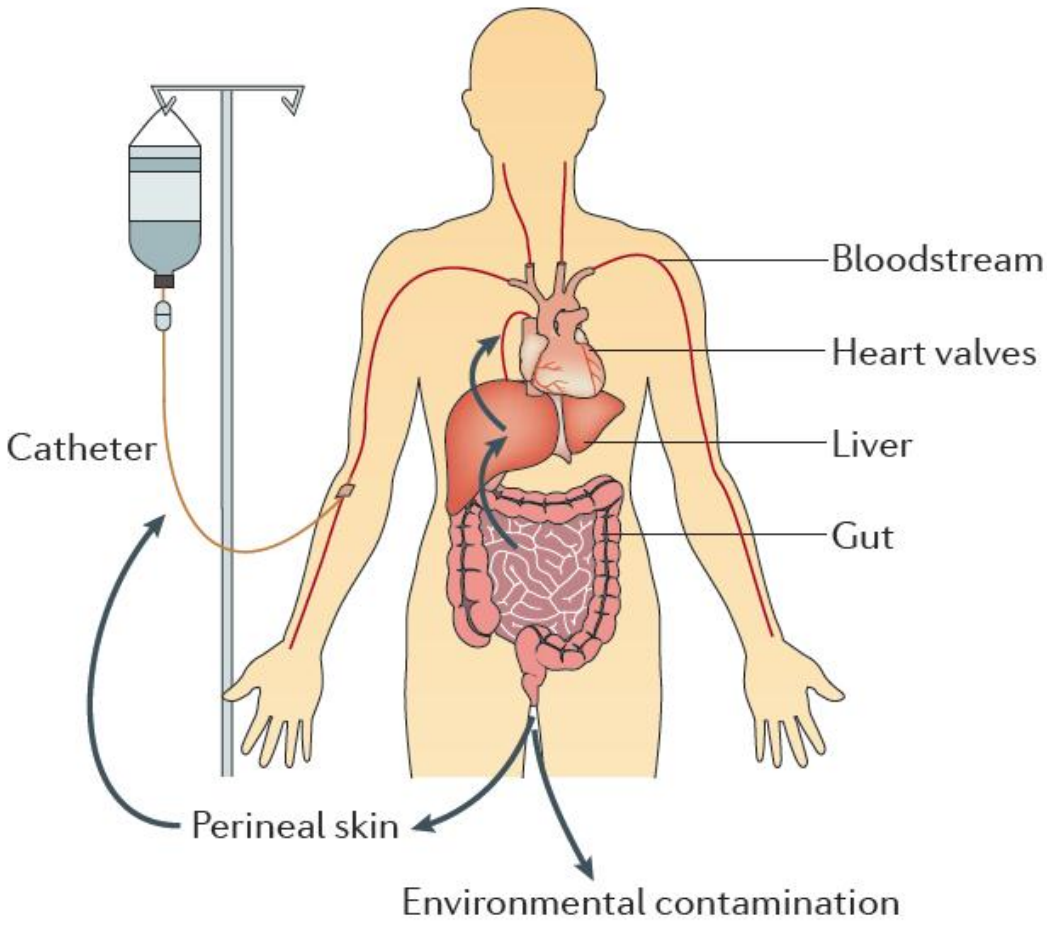
Relatively low virulence

Intrinsic resistance to many antibiotics

Ampicillin and vancomycin are key drugs for treatment

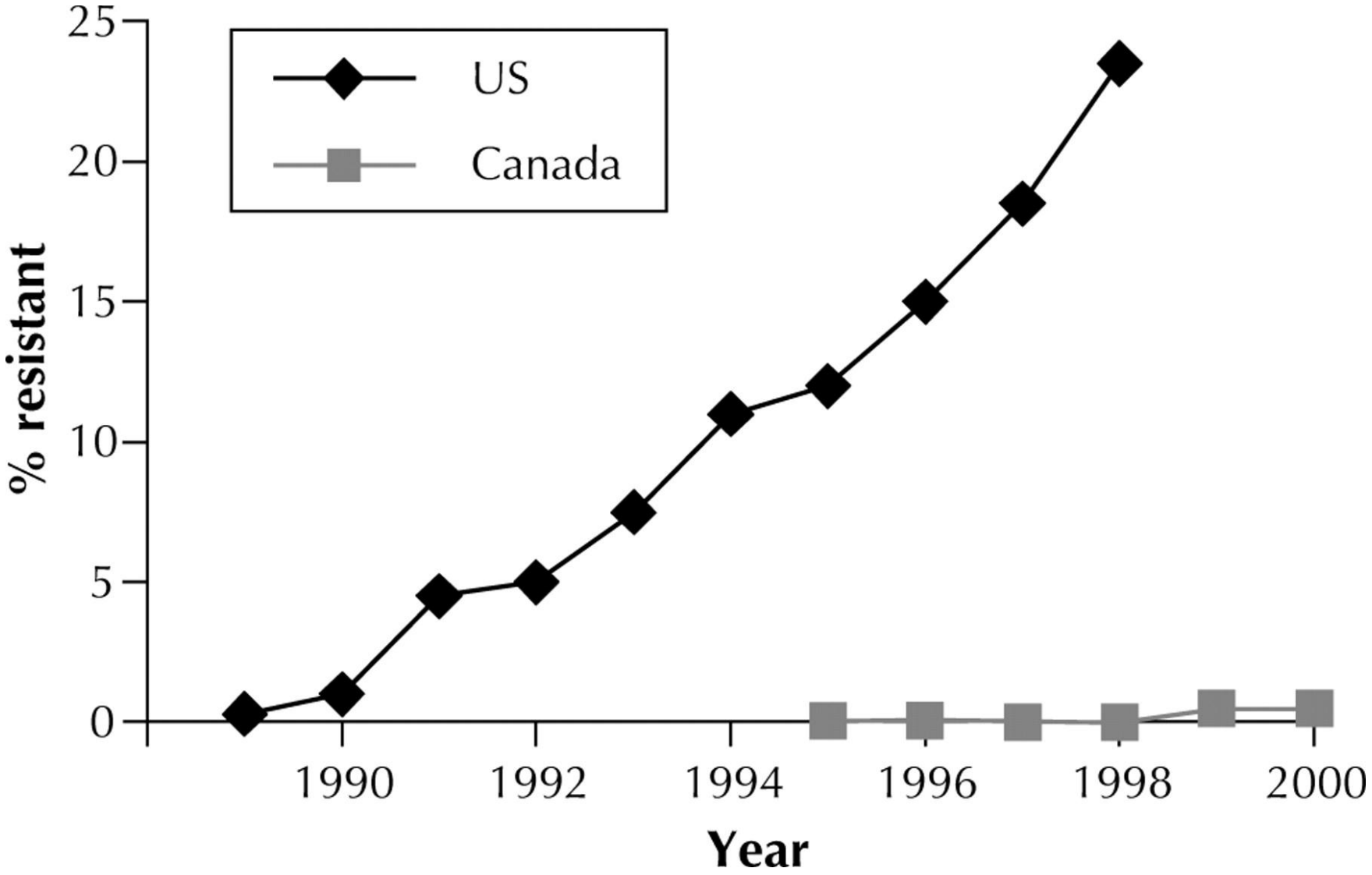




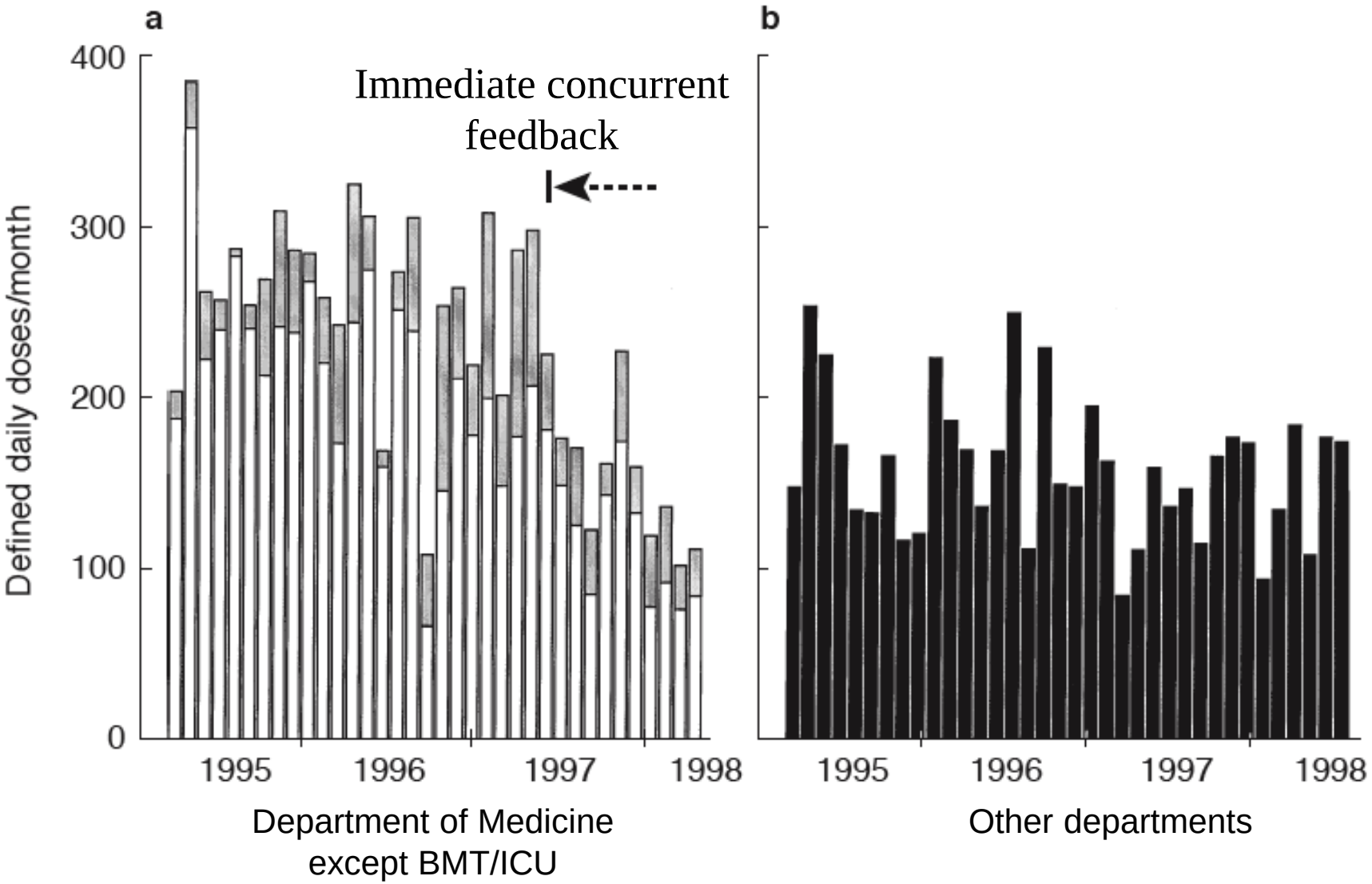


Nat Rev Microbiol. 2012 Mar 16;10(4):266-78. doi: 10.1038/nrmicro2761.

Increasing trend of VRE in North America in 1990s



Glycopeptide (vancomycin, teicoplanin) usage in QMH before and after antibiotic auditing



Br J Clin Pharmacol. 2001 Oct;52(4):427-32.

MDRO situations in public hospitals, Hong Kong (2010)

Incidence	MRSA BSI (耐藥性金黃葡萄球菌 - 菌血症)	VRSA (萬古霉素耐藥性金黃葡萄球菌)	VRE (耐萬古霉素腸球菌)	ESBL + NR (超廣譜β-內酰胺酶耐藥性桿菌)	CRE (碳青霉烯酶耐藥腸桿菌科細菌)	CRA (碳青霉烯酶耐藥鮑氏不動桿菌) / MDRA (多重耐藥性鮑氏不動桿菌)	CRPA (碳青霉烯酶耐藥綠膿假單胞菌) / MRPA (多重耐藥性綠膿假單胞菌)
2010	0.15 /1000 acute bed days **≥ 2 days of admission:** 0.07/1000 acute bed days	Not detected	0.4% (3 outbreaks involved 28 patients)	20-25%	0.19% (13 cases)	39% MDRA= 2.1%	4.62% MRPA=0.1%

Antibiotic stewardship program:
Broad spectrum antibiotics + Vancomycin

Data from HAHO / CHP

Emergence of New Delhi metallo-β-lactamase 1 in Enterobacteriaceae

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Antibiotic resistance

Emergence of New Delhi metallo-ß-lactamase 1 in Enterobacteriaceae is a major problem. A study reports on this carbapenemase in India, Pakistan, and the UK.

Article *The Lancet Infectious Diseases* (online August 11)

Full text | PDF

Press released from Lancet (11 August 2010)

http://www.thelancet.com/

Active surveillance culture: Whom **TO** screen ?

Triage (frontline nursing staff): TO in the past 1 yr

T: Travel as medical tourist / hospitalized outside HK

O: Operation outside HK

Infection Control Team

Advise on infection control practice

Monitor specimen collection & result

Laboratory diagnostic

Screening for CRE / VRE / MDROs

Send out to PHLS

CRE: Carbapenem Resistant *Enterobacteriaceae*

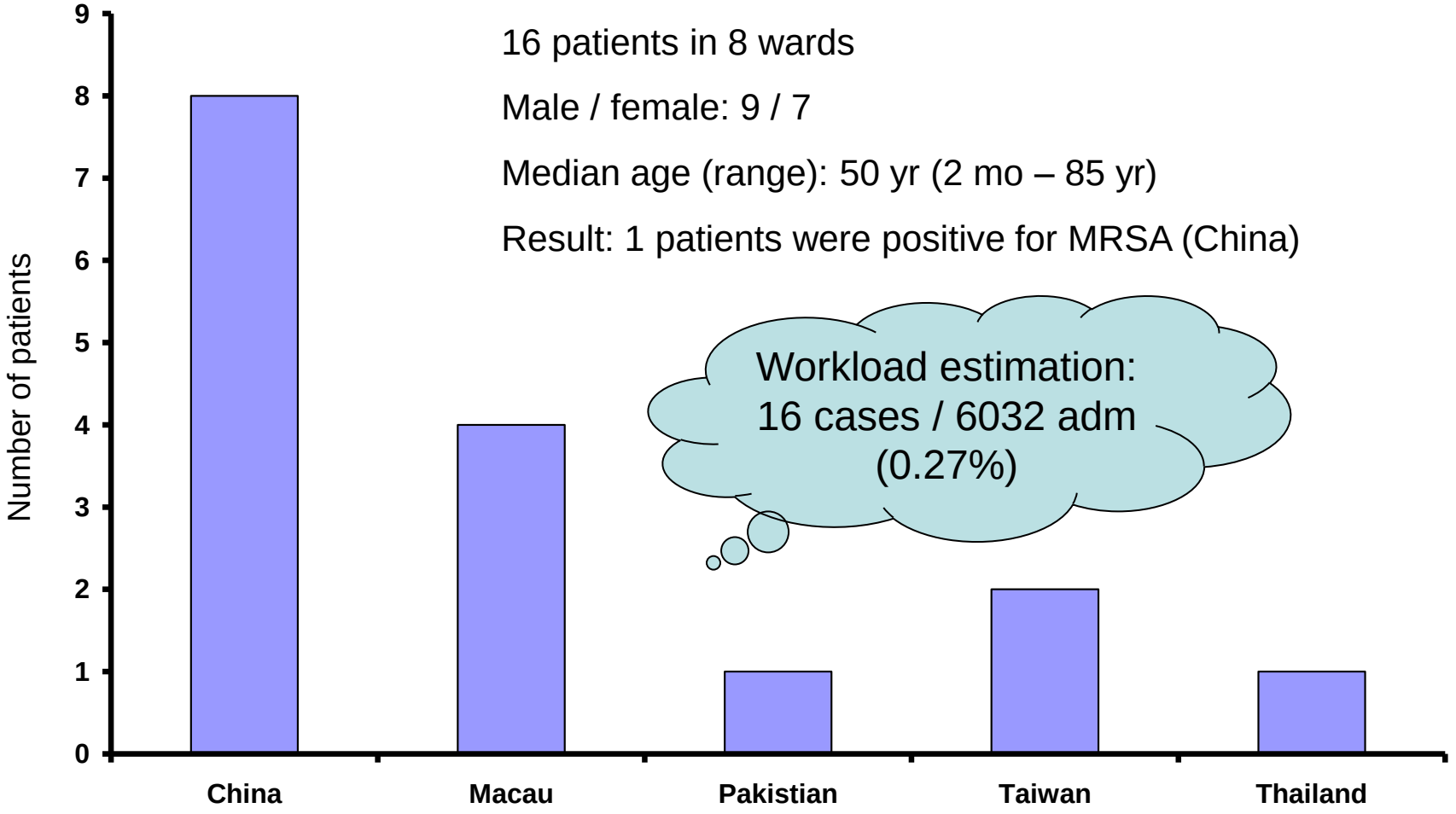
Preliminary result of active surveillance culture in Queen Mary Hospital (14 -31 August 2010)

16 patients in 8 wards

Male / female: 9 / 7

Median age (range): 50 yr (2 mo – 85 yr)

Result: 1 patients were positive for MRSA (China)



Total IP & DP Discharge & Death in HA 2008-2009 ~ 1,270,000

Estimated workload in HA ~ 3400 pts per year ~ 490 pts per cluster

Screening of multiple drug resistant organisms (MDRO)
for patients transferred from local hospitals* or
had in-patient treatment in the past one year outside Hong Kong

Adm. Date: _____

Ward / Bed: _____

Patient Bar code Label

Adm. or T/I from
❑ Hong Kong _____ Hospital
❑ China ❑ India ❑ Pakistan ❑Philippine ❑ Indonesia
❑ UK ❑ USA ❑ Canada ❑ Other places _____

** Had ICU care or antimicrobial treatment in the previous 3 months*

PERFORM SCREENING ON THE DAY OF ADMISSION

❑ Nasal swab for MRSA screening
❑ Rectal swab / stool (preferable) for VRE screening
❑ Wound swab / skin lesion swab for culture *(if wound or ulcer is present)*
❑ CSU for culture *(if urinary catheter is present)*
❑ Drain fluid for culture *(if drain catheter is present)*
❑ Others _____ for culture

GCR request is also required

Requested by

_____
Dr.

On completion of specimen collection
(1) Fax this form to Infection Control Team (ICT) at 22553805
(2) Send this form with the specimen to KLG1 Micro. Lab.

Whom **TO** screen?

(QMH model)

Travel:

as medical tourist or being hospitalized as inpatient outside HK

Operation:

had surgery outside HK

Hospitalization in HK (private or public) in the past 3 months

1

Group the case notes from 1 to 5.
Group Discharge sum, History,
Progress, etc. in Group 1.

醫院管理局
HOSPITAL AUTHORITY

Affix patient's label if available

Patient Name

Hospital Number	HKID No.
Sex/ Age	Ward/ Bed

Nursing assessment on patient admission / transfer

Diagnosis 1.

2.

Patient ID checked on: Staff name :

Transfer from: at hour on

Admission:

Operation/Date:

Mode: ❑ Walk in ❑ Wheelchair ❑ Stretcher

* Emergency / Clinical * New Case / Old Case

Admitted at hour on

Allergy History: ❑ Nil ❑ Food: _____ ❑ Drug: _____ ❑ Others: _____

Infectious Risk Assessment: History of travel (Recent 7 days) ❑ No ❑ Yes, place: _____ Occupation: ❑ _____

Hospitalized in the past 1 year outside HK ❑ No ❑ Yes, place: _____ check into "WHOM TO SCREEN" form

Had surgery outside HK ❑ No ❑ Yes, place: _____

Clustering of febrile patients ❑ No ❑ Yes Contact with infectious disease person ❑ No ❑ Yes, specify: _____

History of Past Health:

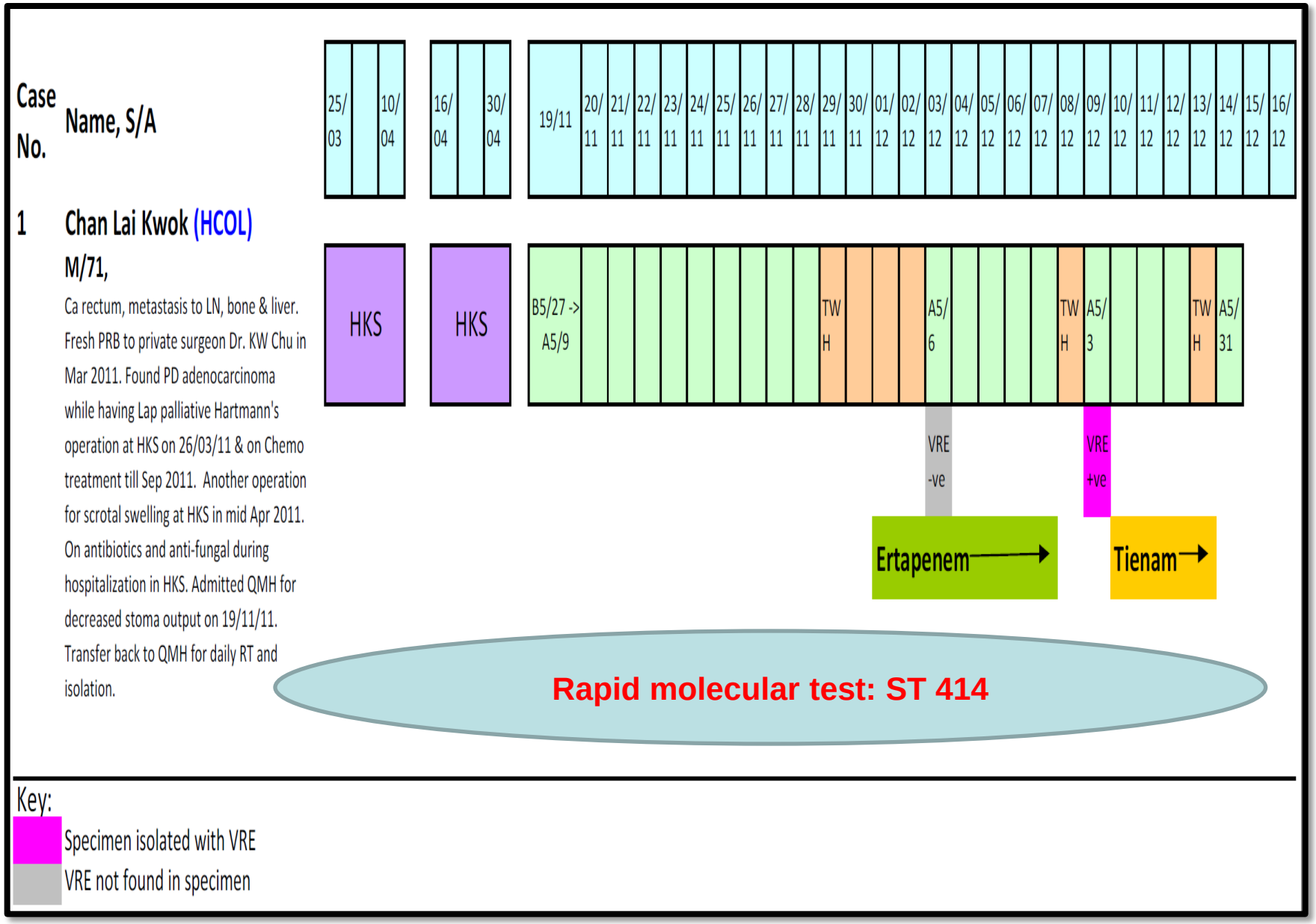
ALL PATIENTS ON ADMISSION

Check CMS ALERT for
multi-drug resistant organisms tagging

Perform "WHOM TO SCREEN"
if have hospitalization
local in the past 3 months
or overseas in the past 12 months

CLEAN HANDS to
prevent transmission of infection

Detection of first case of VRE ST414 by active surveillance culture at Queen Mary Hospital (December 2011)

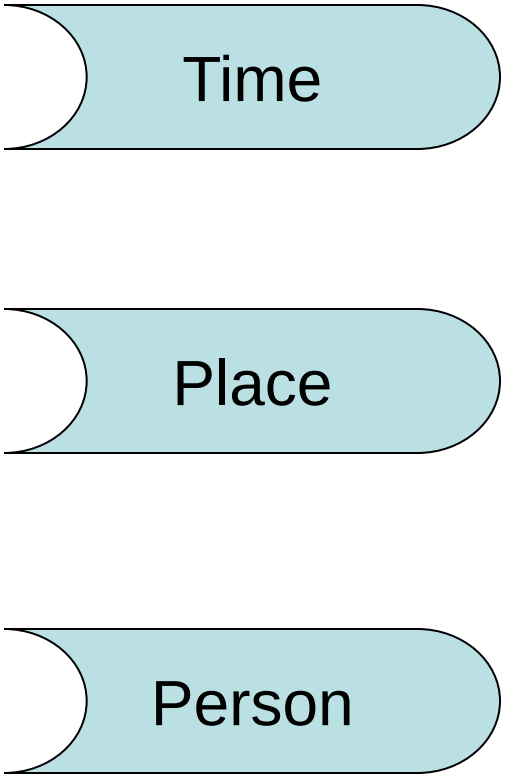


Strict contact precautions
with single room isolation

Thorough environmental disinfection
(Sodium hypochlorite, 1000ppm)


拯救生命
從清潔雙手做起
SAVE LIVES
Clean Your Hands
醫院管理局
HOSPITAL AUTHORITY
Department of Health
衛生署

Outbreak investigation – case definition



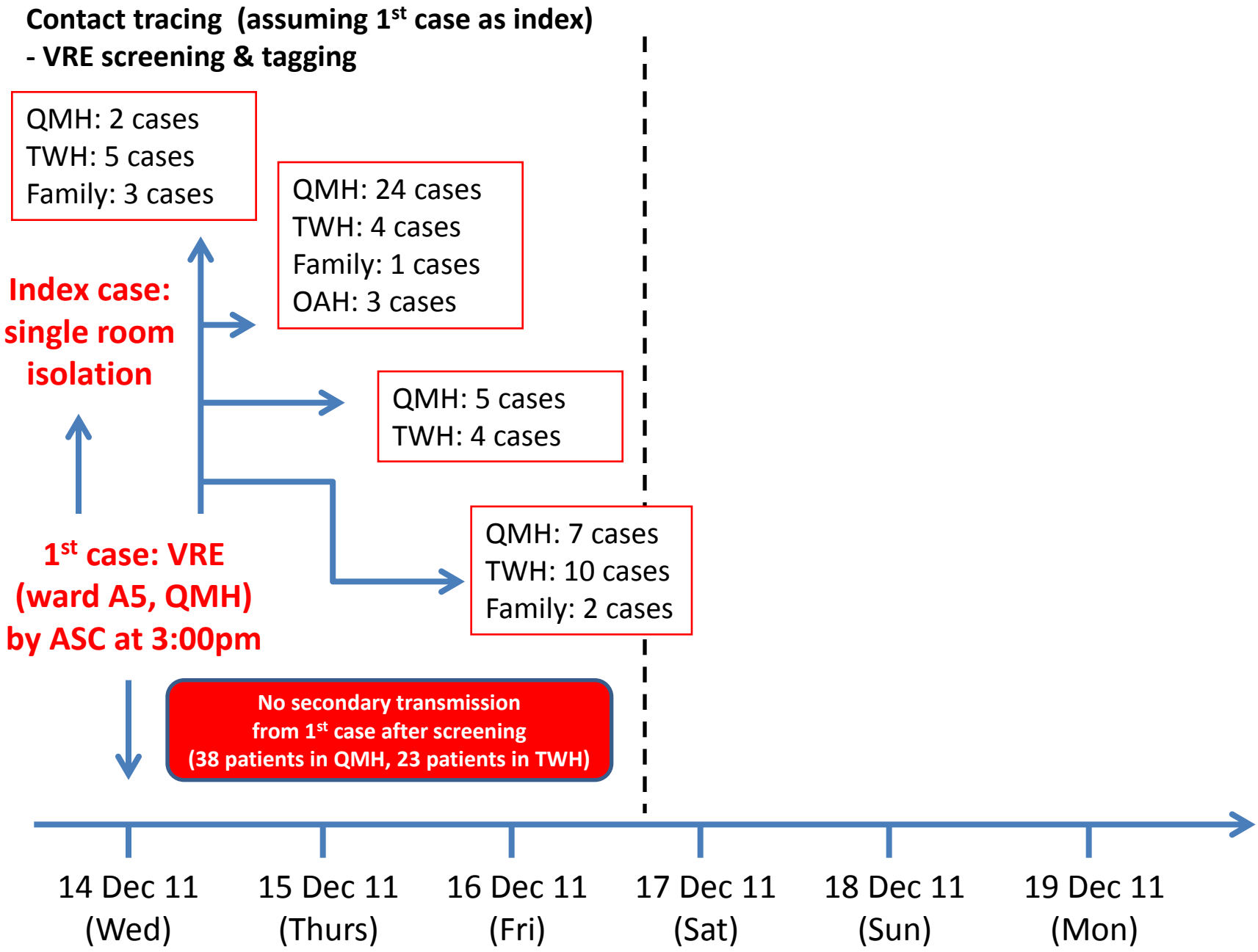
between 19 Nov 2011 to the date of an outbreak investigation

ward A5 (QMH) and C4, C7 (TWH) within the defined period

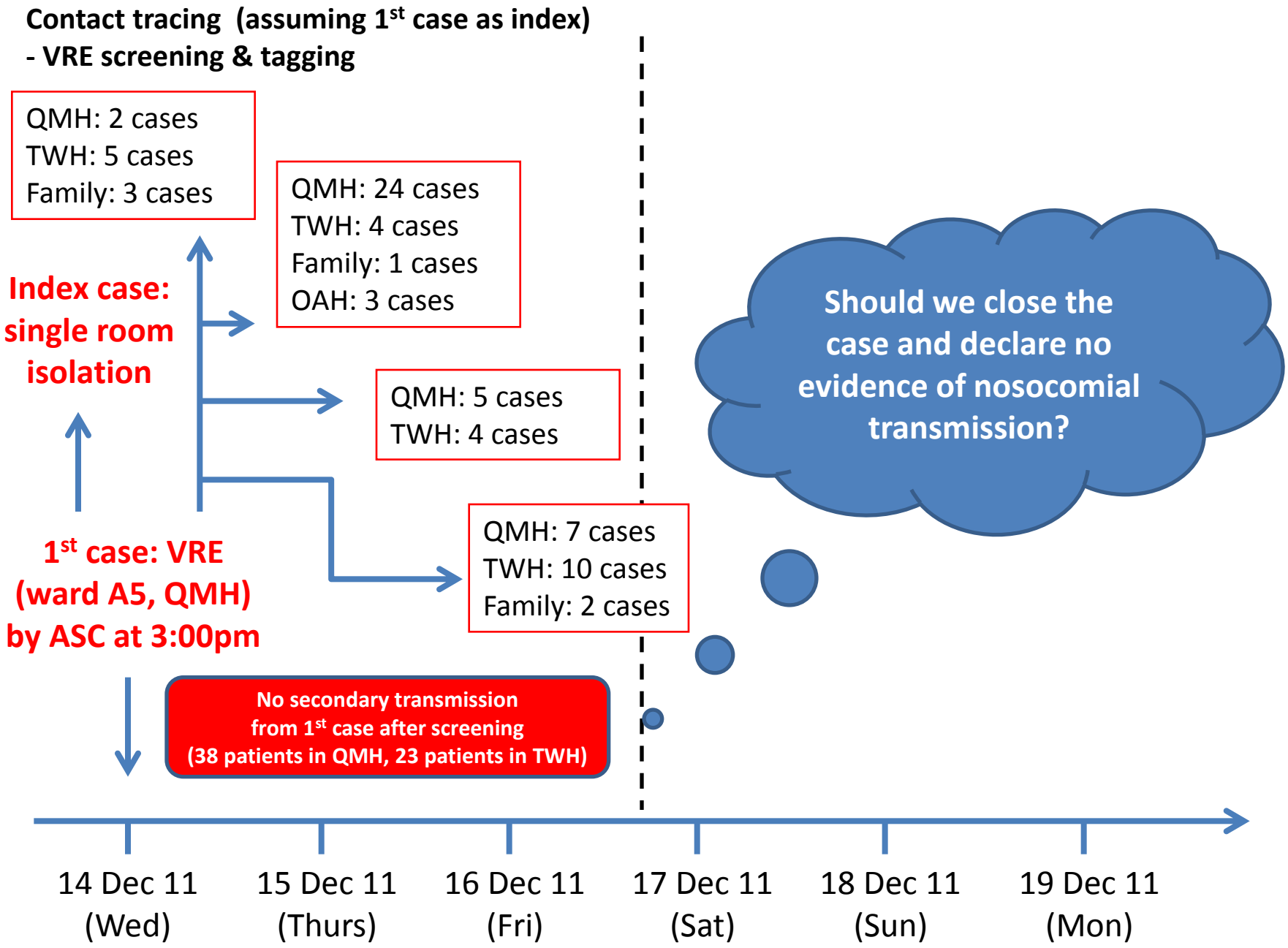
patients with positive culture of VRE in either stool or rectal swab

Patients staying in ward A5 (QMH) between 19 Nov 2011 and 14 Dec 2011
& ward C4, C7 (TWH)
with positive culture of VRE in either stool or rectal swab

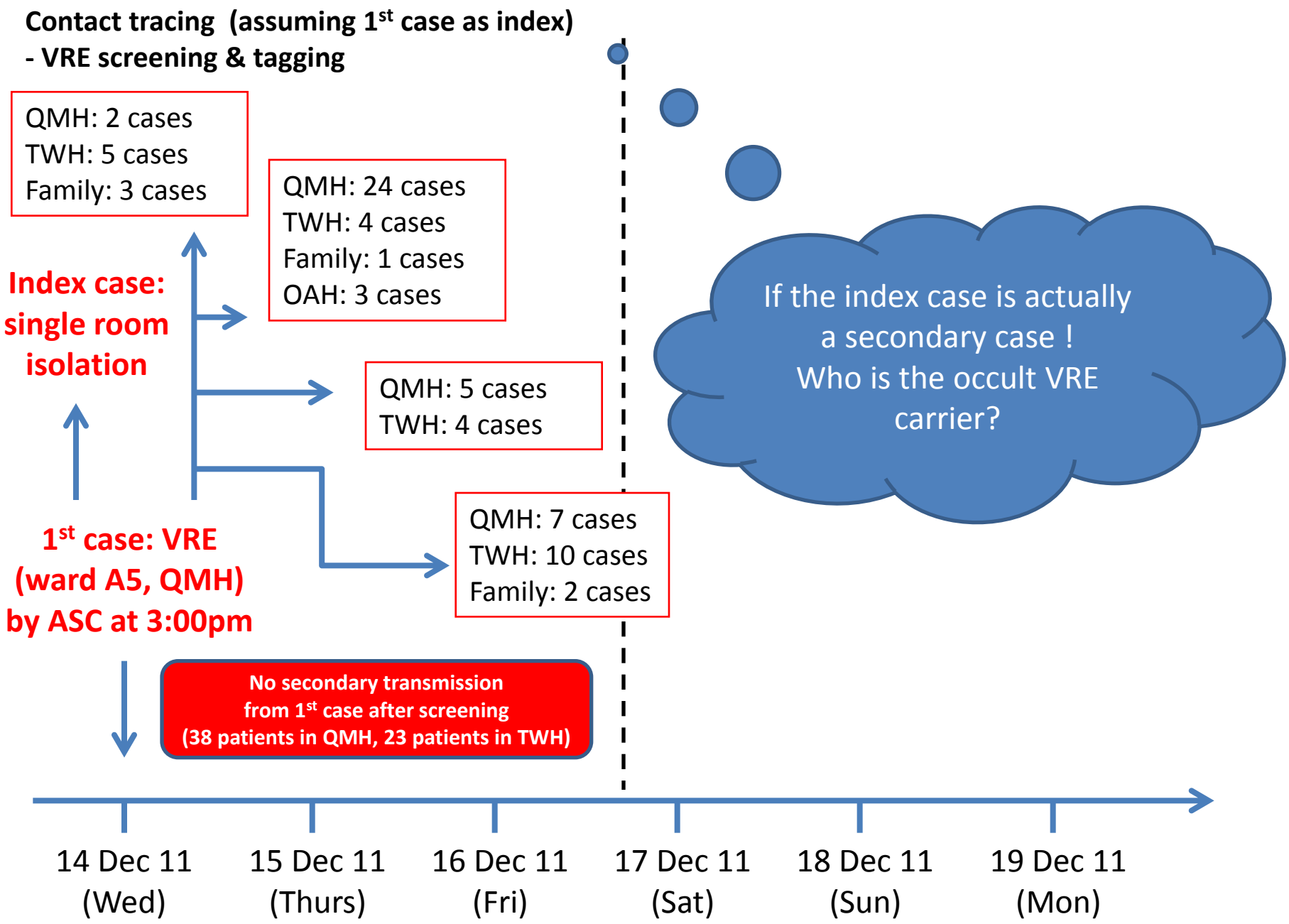
Overview of outbreak investigation for a sporadic case of VRE at QMH (ward A5)



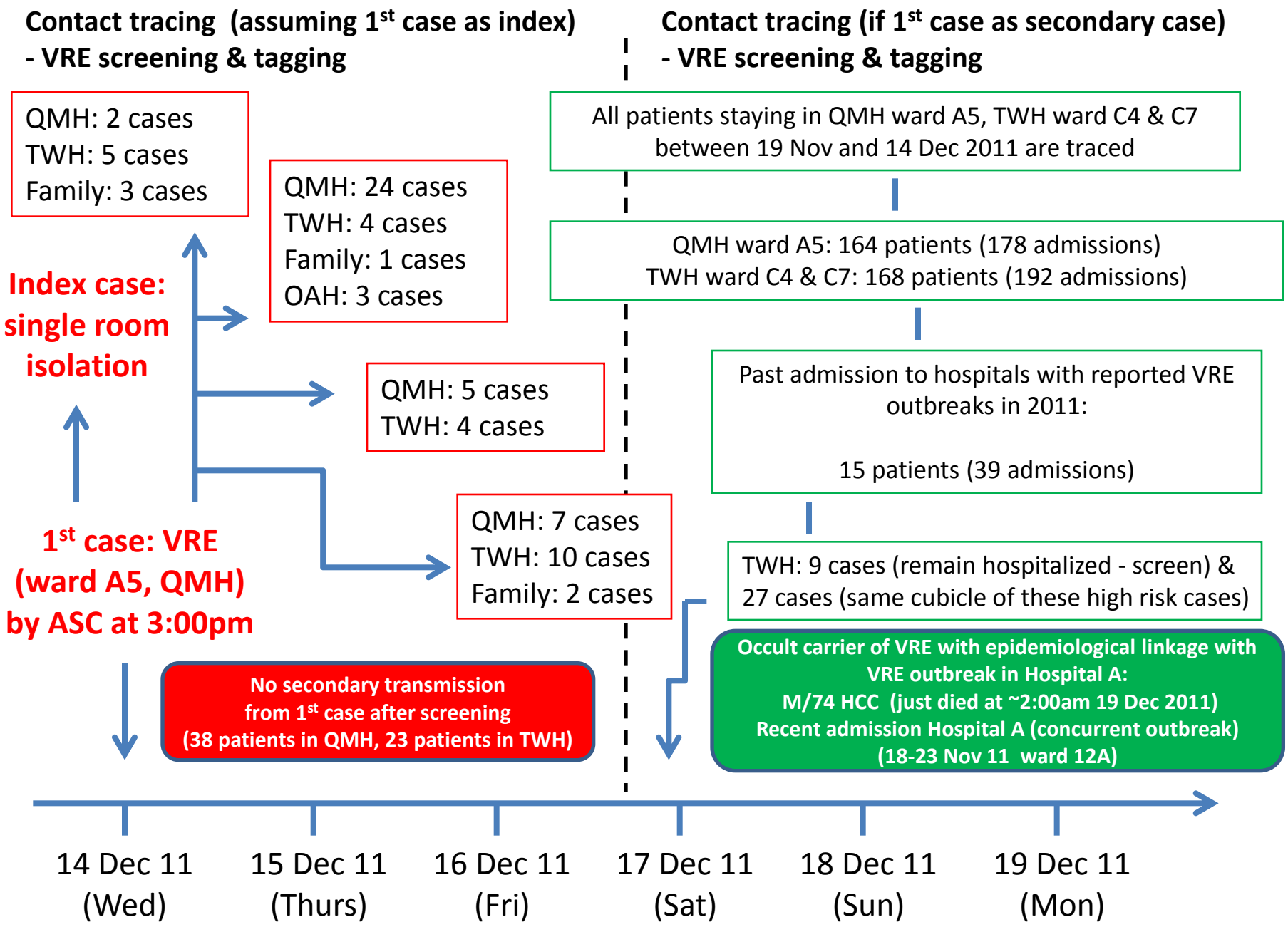
Overview of outbreak investigation for a sporadic case of VRE at QMH (ward A5)



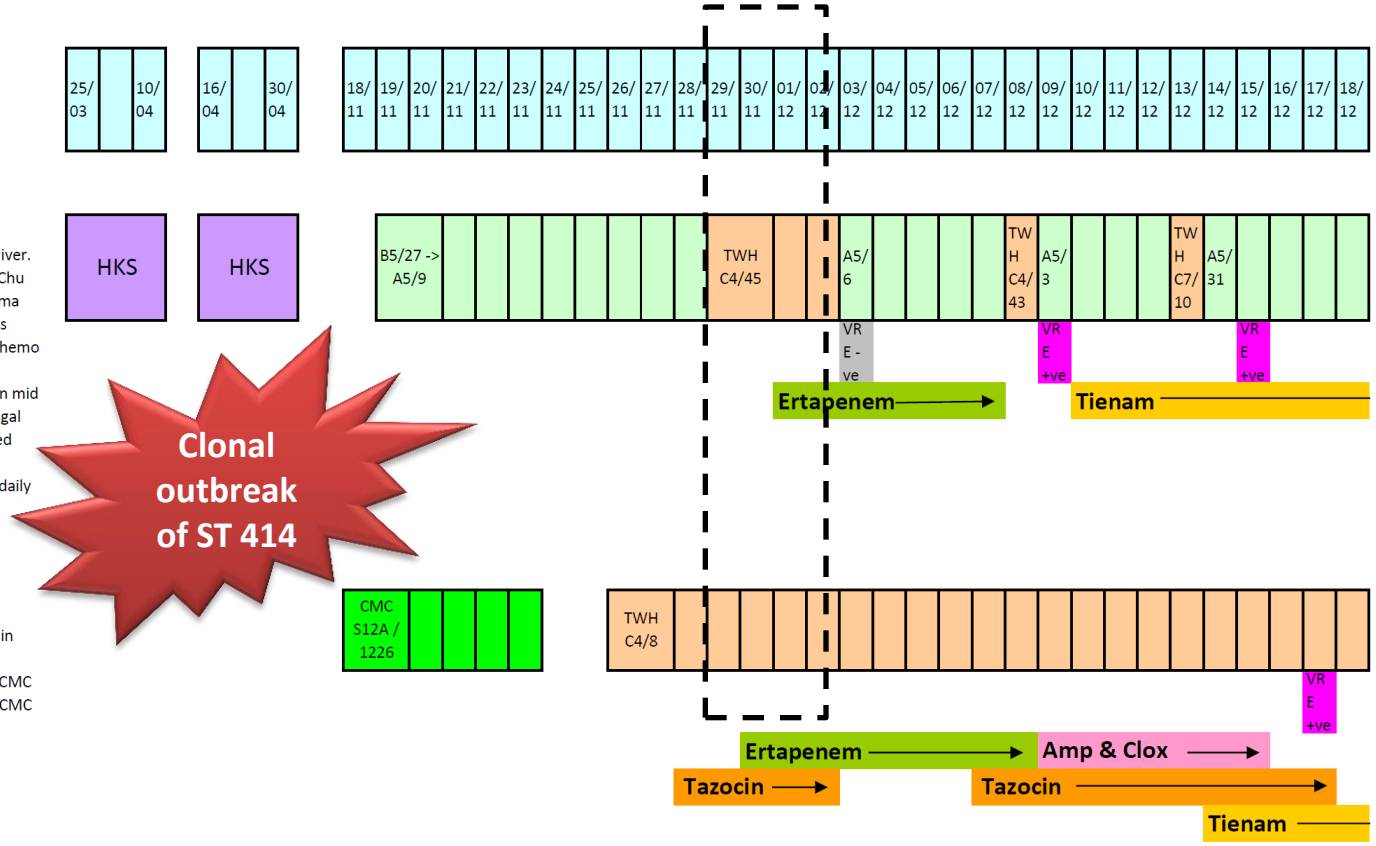
Overview of outbreak investigation for a sporadic case of VRE at QMH (ward A5)



Overview of the contact tracing for a sporadic case of VRE at ward A5, QMH



VRE cases



Key:

- Specimen isolated with VRE
- VRE not found in specimen

Investigation:

1. Patient was admitted at HKS in Mar & Apr 2011
2. Patient was transferred between QMH & TWH since admission
3. No travel history within 1 year
4. Patient's son on & off travel in China
5. Patient's wife in China from Jan - Apr 2011

No history of travel as medical

Infection control measures:

1. Transfer back to QMH for daily RT and single room isolation
2. Contact tracing performed both in QMH and TWH
3. Environmental cleaning on whole ward of A5
3. Environmental cleaning with 1000 ppm Presept twice daily
4. Reinforce Hand Hygiene
5. All staff should maintain strict contact precautions (gown, gloves)

HKWC: outbreak free for 30 months !

東華醫院爆超級惡菌

香港文匯報訊（記者　文森）東華醫院74歲末期肝癌男病人，本月17日被證實帶有抗萬古霉素腸道鏈球菌，病人因長期病患於本月19日去世。醫管局表示，經篩查後發現再有4男2女病人為抗萬古霉素腸道鏈球菌帶菌者，年齡介乎71歲至87歲，他們正接受觀察及隔離，醫院已把有關病房環境及儀器徹底消毒。

難辨梭菌襲九龍醫院

另外，九龍醫院昨日公布康復科再有1名80歲女病人感染難辨梭菌毒素；而康復科男病房亦有4名病人於本月17日後出現腹瀉徵狀，年齡介乎50歲至79歲，經測試後證實病人對難辨梭菌毒素呈陽性反應。醫管局表示，有關病人現正接受隔離治療，情況穩定，而上述兩間病房已停止接收新症，並實施有限度探訪。

此外，衛生防護中心正調查居於深水埗的28歲男子感染入侵性腦膜炎雙球菌的嚴重個案，他曾於本月17日往澳門，至19日出現發燒、頭痛及嘔吐病徵，即日入住聖母醫院，再被轉送明愛醫院深切治療部，病人的腰椎穿刺樣本經化驗後發現含腦膜炎雙球菌。發言人表示，有關疾病是經飛沫傳播。

公院爆抗藥腸道菌

病人增6倍 恐暗藏社區傳播

特稿

公立醫院過去一年抗藥腸道惡菌VRE爆發急增，受影響病人急升6倍，達87人，醫管局承認醫院及老人院舍成兩大高危點，重災區之一的明愛醫院內科，更出現一個病房內不同病室輪流爆發，顯示只針對同一病室尋找帶菌病人已現漏洞，故決定擴大將所有同期同房病人電腦病歷加標籤識別，初步至少涉三數百人，衛生署亦將為老人院加設防控抗藥菌訓練講座。

明報記者 **陳佩儀**

VRE爆發及感染數字

醫院	爆發宗數	受影響人數
2010年		
明愛	1	4
聖母	1	4
屯門	1	5
總數	3	13
2011年		
明愛	6	42
伊利沙伯	2	37
東華	1	8
總數	9	87

資料來源：衛生防護中心

明愛重災 醫院老人院高危

衛生署資料顯示，2011年錄得的醫院病房爆發「抗萬古霉素腸道鏈球菌」（VRE）個案以及受影響病人數字均以3至6倍急增（見表），其中明愛醫院2010年10月內科及老人科病房爆疫後，同一病房另一病室2011年2月再爆VRE。該院內科病房同樣出現不同病室相繼在8月、10月底、11月中和12月初爆發VRE，每宗涉及至少5至11名病人，絕大部分是65歲以上長者。

隱形帶菌者全無病徵

伊利沙伯醫院腦外科VRE爆發則涉及最多病人，9月22日首2名病人中招後，跟進同房病人，發現多25人同染VRE，當中至少20人屬全無病徵的「隱形帶菌者」。上月4名來自兩間老人院的長者，入院明愛亦被發現是「隱形帶菌者」，令人關注此抗藥惡菌已隱藏社區暗地傳播。

醫管局感染控制主任曾艾壯接受本報訪問時承認，醫院和老人院確是VRE傳播高危地點，但據他們跟進上月4名入院明愛的「隱形帶菌者」，其老人院內較緊密接觸的院友，全部均無帶VRE，「無我們想像中那麼危險！」他說，衛生防護中心科學委員會早前也有專家提出，應對有VRE病人入住的老人院作全面VRE篩選以評估社區風險，但以上述兩老人院篩選經驗，現仍未有此迫切性。

惟他不諱言，參考明愛醫院經驗顯示，只針對與VRE帶菌者所住病室作染菌篩查已呈漏網，故剛引入新措施，於所有與VRE帶菌者同期同病房的病人電腦病歷加上標籤，一旦他們再入院，電腦便會識別出來先作隔離驗菌，以防抗藥菌跨院擴散，一旦該院隔離病房爆滿，已有計劃可動用瑪嘉烈醫院隔離中心。

帶菌者同房加標籤 入院即隔離

「我們會由最近期的個案『倒數』逐一輸入標籤，因他們是最高危，明愛和伊利沙伯醫院初步合共至少有三數百人。」曾艾壯說，有關電腦輸入工作至少需一個多月才能完成。防護中心則表示，他們會研究針對九龍區內老人院VRE篩查的作用和可行性，並計劃在未來兩個月內為安老院舍安排防控抗藥菌的訓練講座。

21 Dec 2011

Occult source of VRE from a patient with recent history of admission to Hospital A

[Case No: HN11047179(6)]

Drug Allergy: (1)No Known Drug Allergy

Diagnosis:	Modifier	Description (*Modifier: ?=Provisional; C=Complications)	Spec
Principal:	☐☐	Hepatic encephalopathy (572.2)	MG
	☐☐	Macrocytic anaemia (281.9)	MG
	☐☐	Chronic renal impairment (585.1)	MG
	☐☐	Thrombocytopenia (287.5)	MG
	☐☐	Non-alcoholic cirrhosis of liver - child's B (571.5)	MG
	☐☐	Hepatitis , viral B - chronic (070.32)	MG
	☐☐	Care involving other specified rehabilitation procedure (V57.89)	MG
	☐☐	Ascites (789.5)	MG
	☐☐	Oesophageal varices (456.1)	MG
	☐☐	Chronic Gastroduodenal Ulcer (533.70)	MG
	☐☐	Gastric varices (456.8)	MG
	☐☐	Palliative care for Cancer of liver parenchyma (155.0, V66.7)	MG

DISCHARGE SUMMARY

requested DAMA
patient's son prefer to bring back paitent to TWH if condition deteriorated

Plan of Management:

DAMA
memo to TWH

26 Nov 11 (Sat):
Admit TWH ward C4

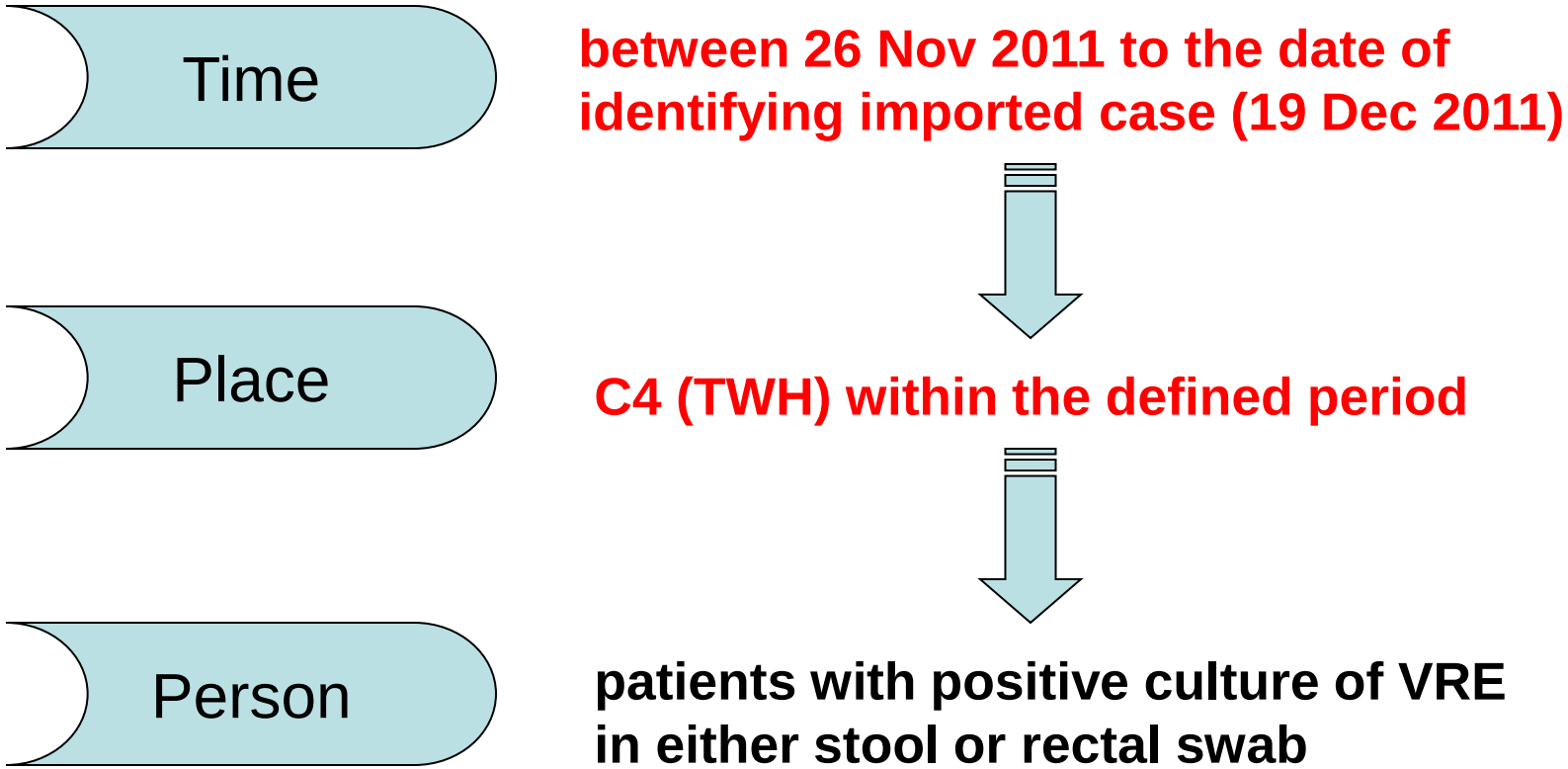
3 weeks !

17 Dec 11 (Sat):
VRE screening

19 Dec 11 (Mon):
Died ~ 2:00pm

19 Dec 11 (Mon):
Confirmed VRE ~ 7:00am

Outbreak investigation – revised case definition



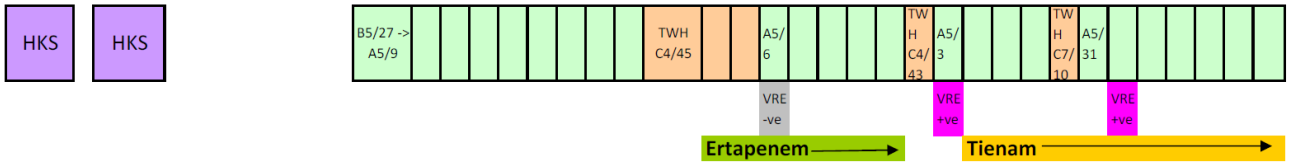
Patients staying in **ward C4 (TWH)**
between 26 Nov 2011 and 19 Dec 2011
with positive culture of VRE in either stool or rectal swab

VRE cases

Case No. **Name, S/A**

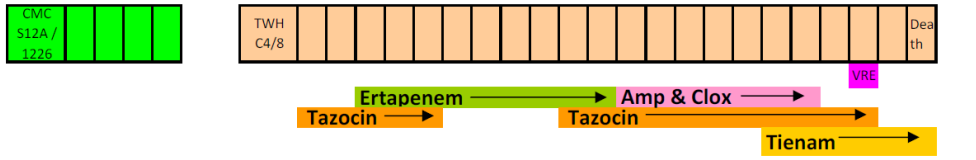
1 Chan Lai Kwok (HCOL)

M/71, Ca rectum, metastasis to LN, bone & liver. Admitted QMH for decreased stoma output on 19/11/11. Transfer back to QMH for daily RT and isolation.



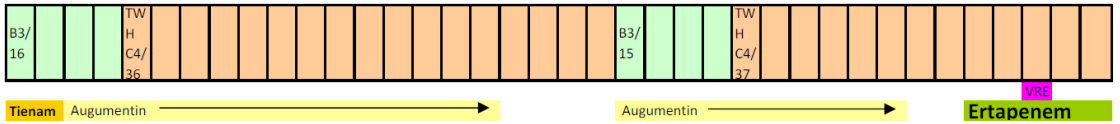
2 Fok Yuk Tong

M/74, Ca Liver & Cirrhosis, Rec HCC with main portal vein thrombosis, Hep B carrier. Hepatic encephalopathy admitted to CMC on 18-23/11/11. Patient DAMA from CMC then admitted to TWH on 26/11/11.



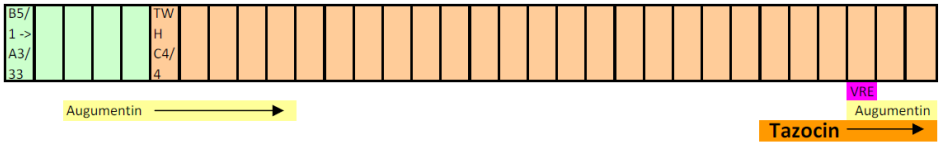
3 Wu Luk Mui

F/77 Cholangiocarcinoma, H/T. No KLN admission. Admitted to RH on 14/07/11 for obsturctive Jaundice. Cared between TWH and QMH afterward till now.



4 Chan Wu

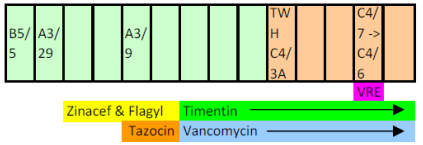
M/87 Ca ureter, Dementia, Rec CVA. No KLN admission.



5 Tsai Kuang Sun

M/72 HBV, HCC, Parkinson's disease, BPH. No KLN admission. Cared between QMH & TWH in Aug and Sept 2011.

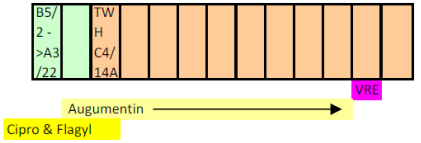
Screening on 19 Dec 11



6 Ng Han

M/78 COAD, Rec Lt. pneumothorax. No KLN admission. Admitted to RH in Sept and Oct 2011.

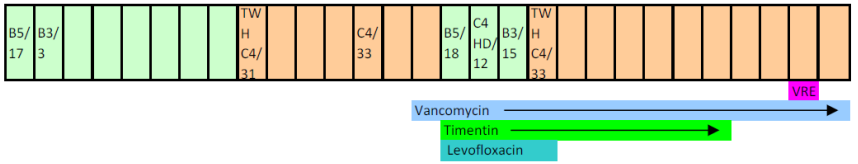
VRE +ve on 20 Dec 11



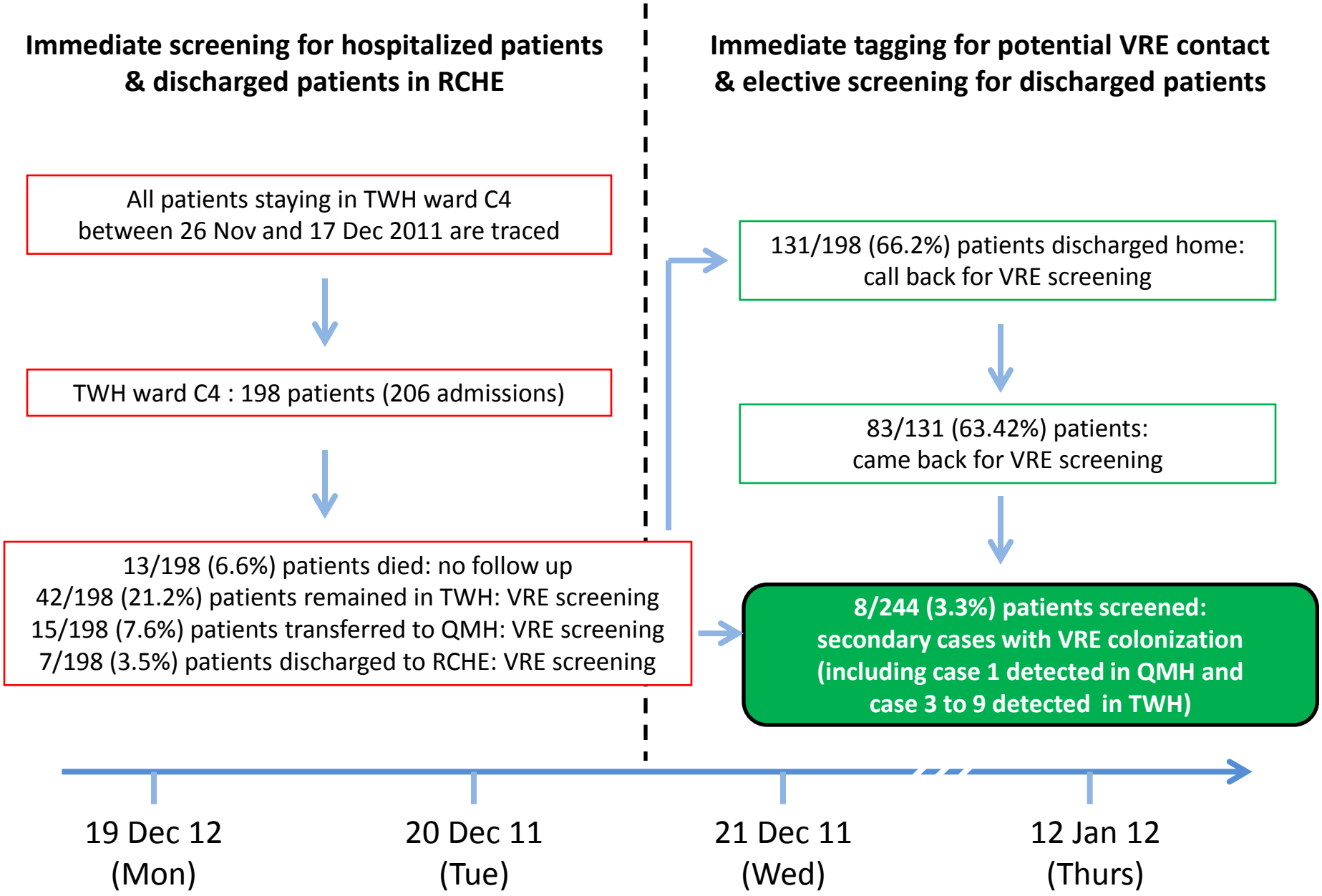
ST414 on 21 Dec 11

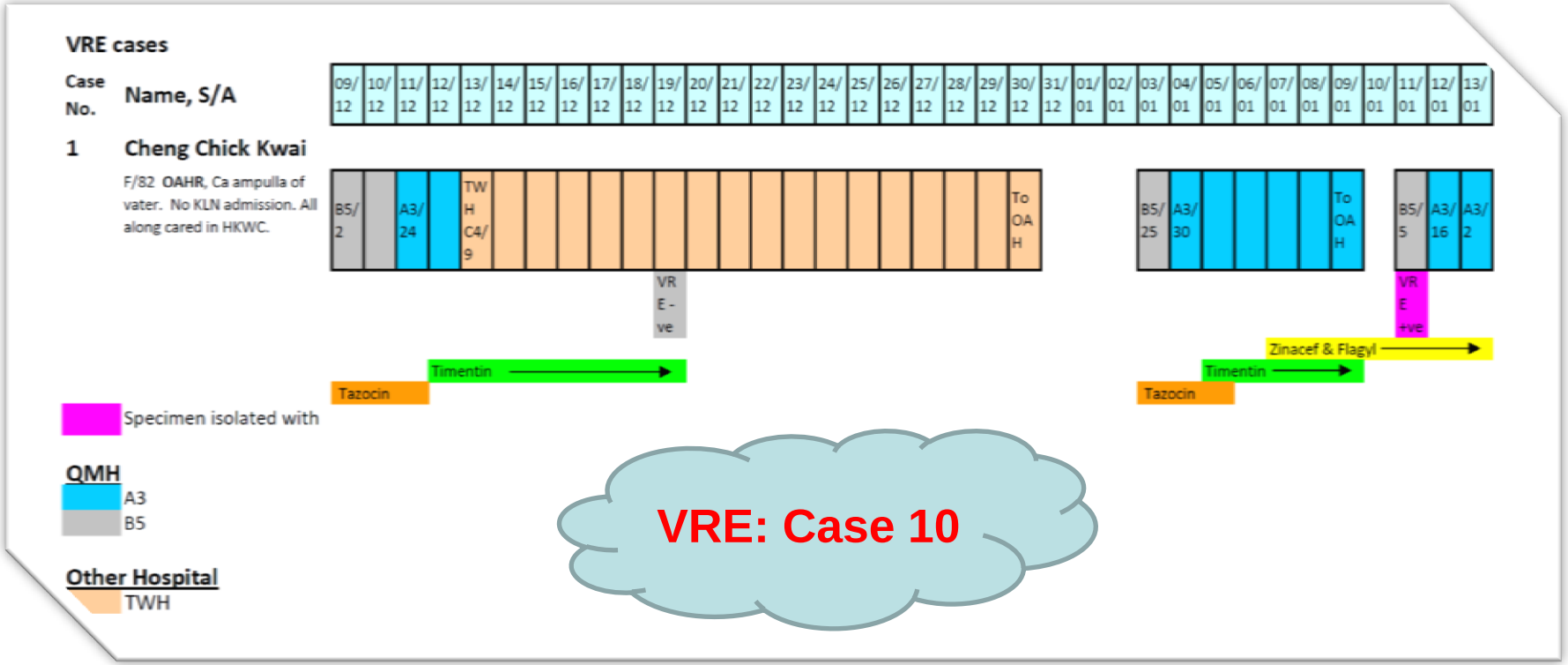
7 Lee Wai Ming

F/82 **OAHR**, DM, H/T, Liver cirrhosis. No KLN admission. All along cared in HKWC.



Extensive contact tracing for secondary case of VRE at ward C4, TWH
(after identification of exogenous source of VRE - case 2, with epidemiological link from Hospital A)





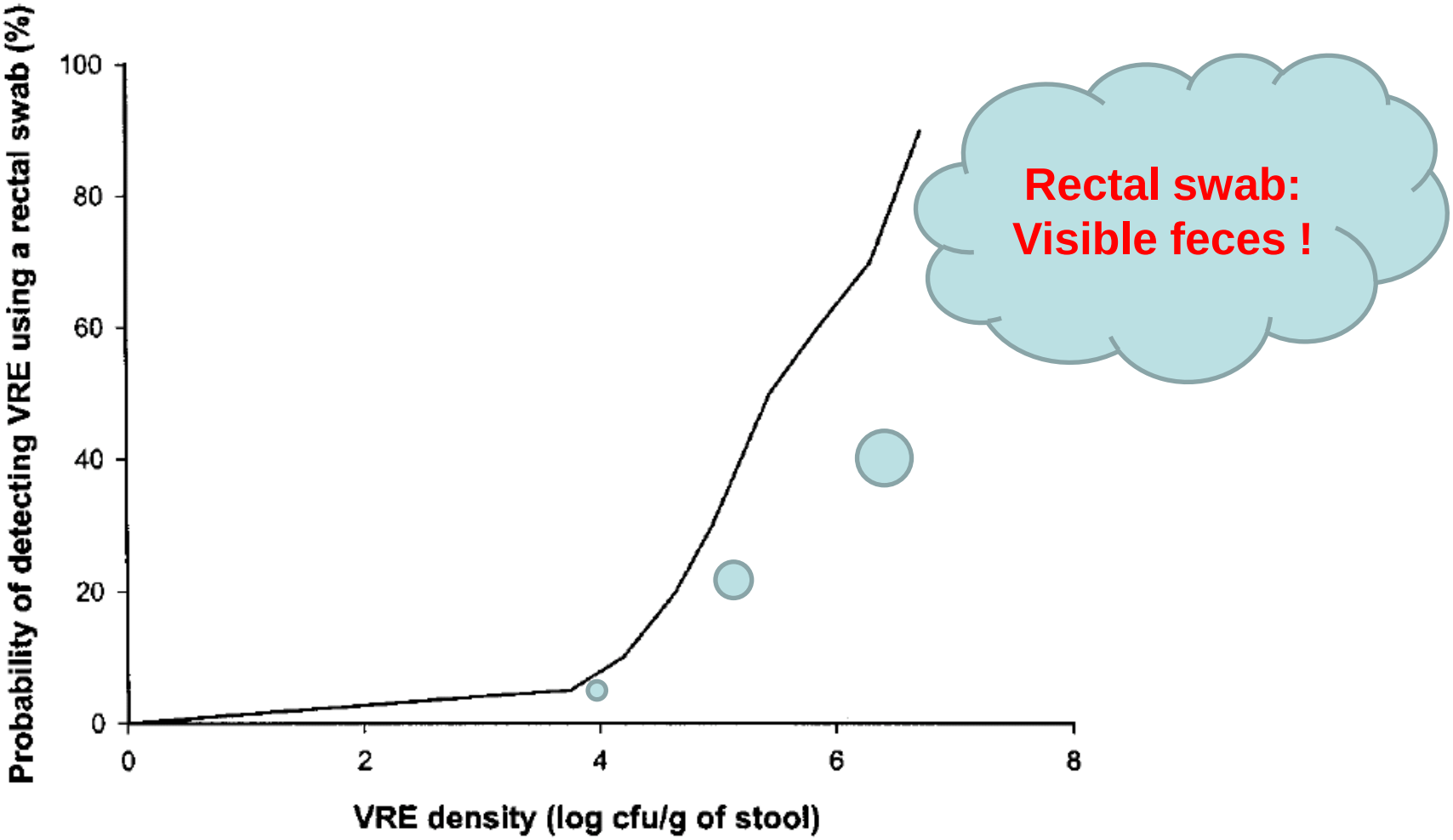
Another new case of VRE detected at QMH !

? Acquired from TWH (missed by Chromagar)

? Acquired from an occult source from QMH

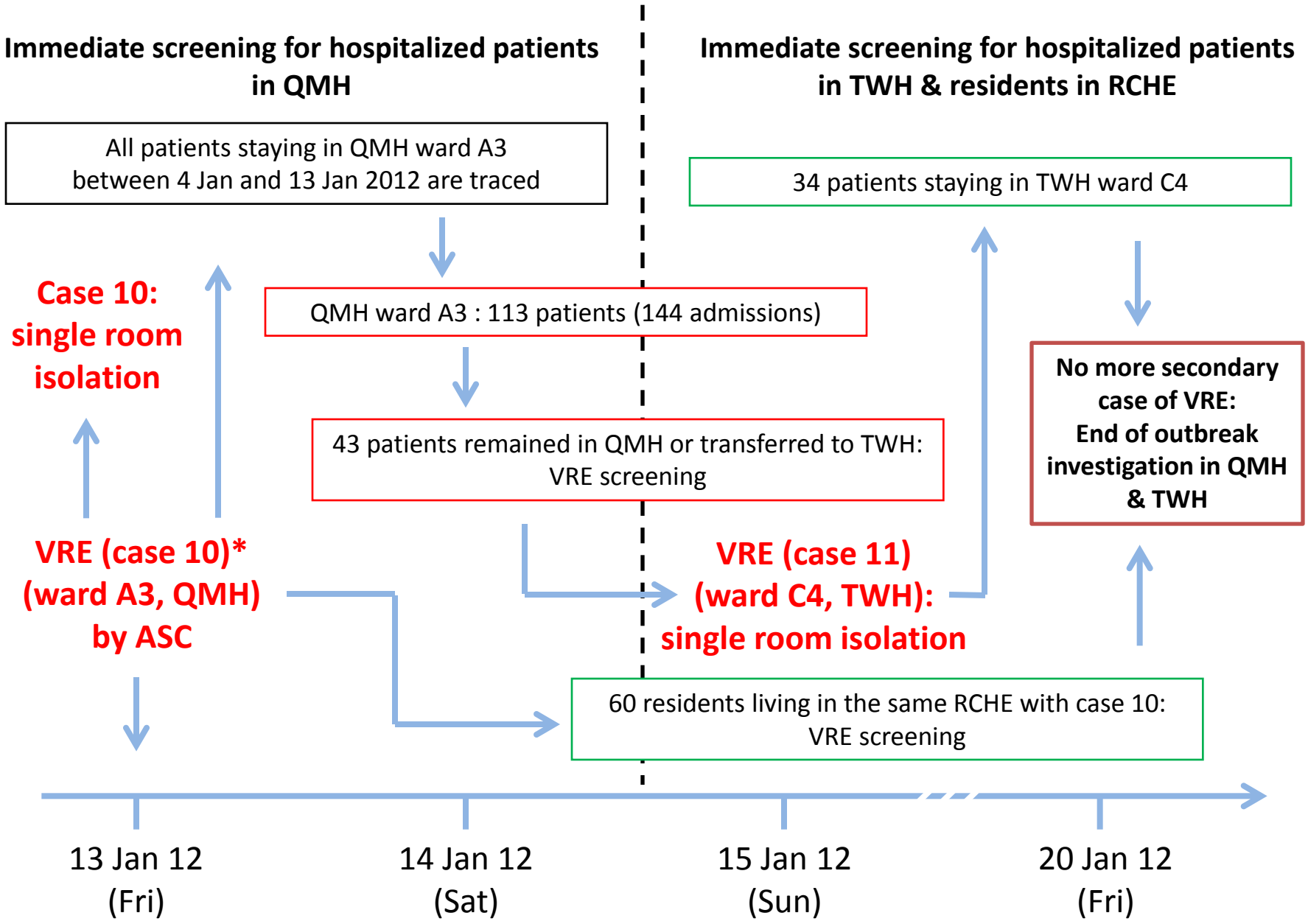
? Acquired from OAH

Overall sensitivity of the RS culture: 58% (95% CI, 37–77)

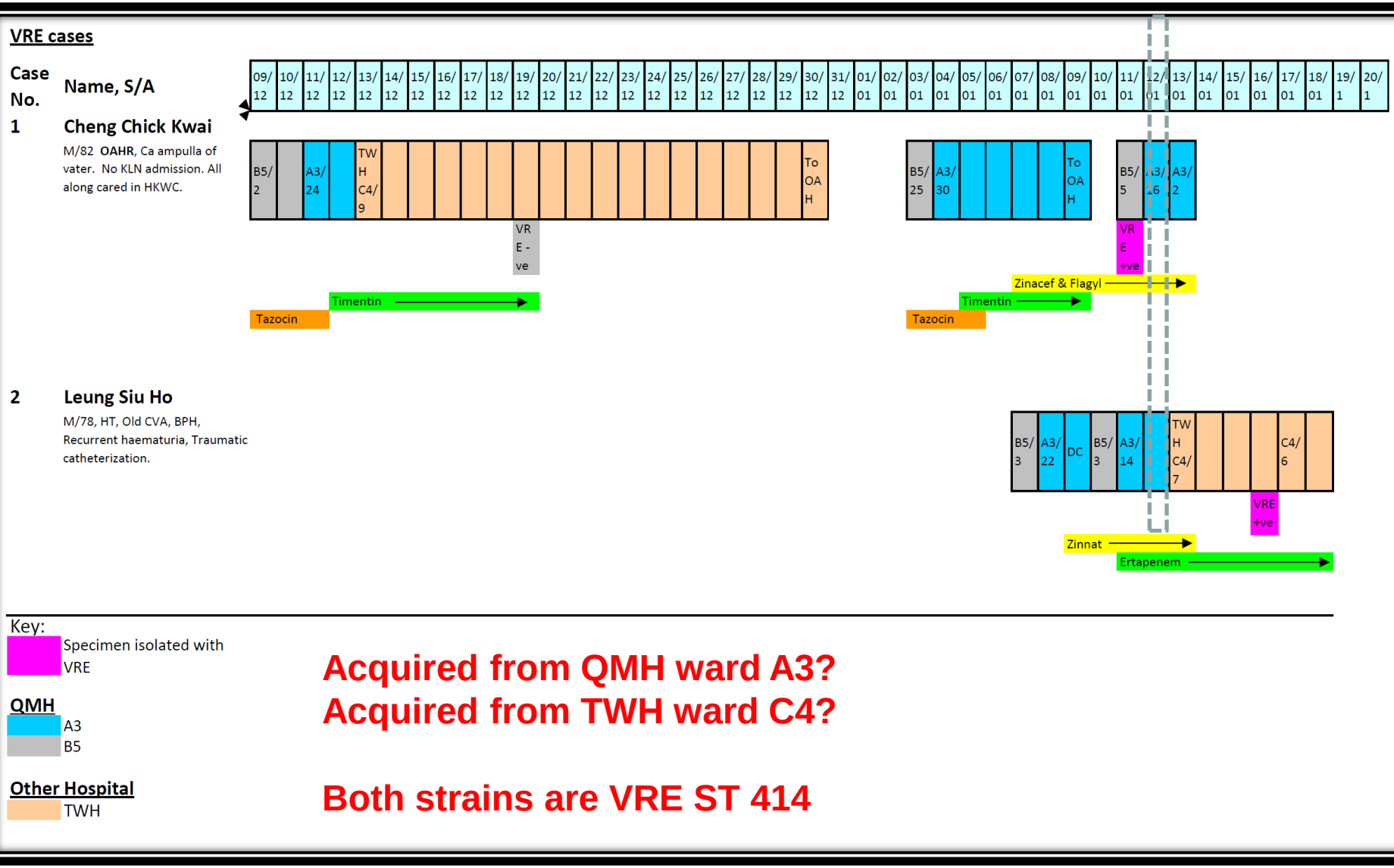


Clin Infect Dis. 2002 Jan 15;34(2):167-72.

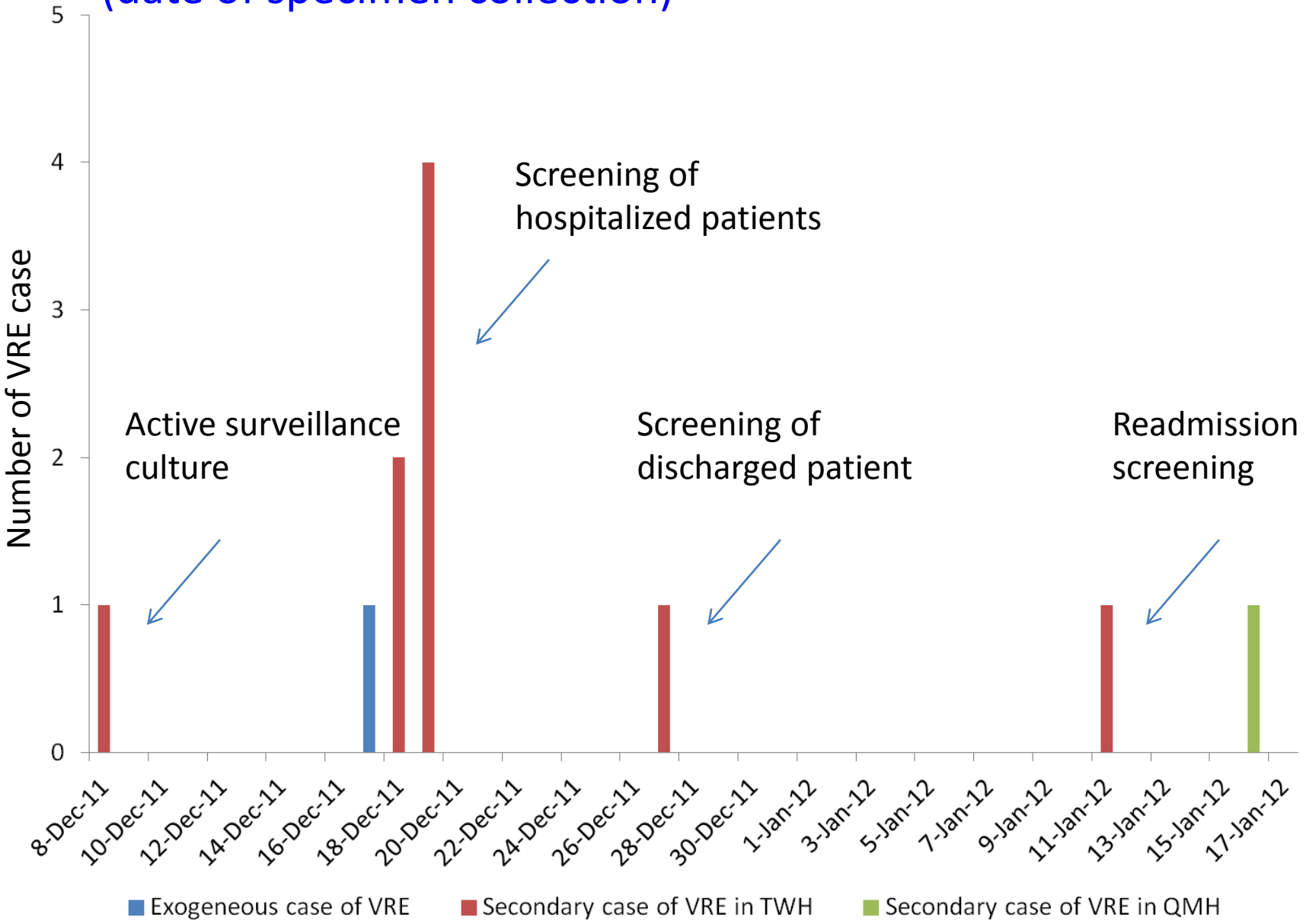
Extensive contact tracing for secondary case of VRE at ward A3, QMH
(after identification of VRE - case 10, with epidemiological link from ward C4, TWH)



One secondary asymptomatic case of VRE is identified !



Epidemic curve of VRE outbreak in TWH and QMH
(date of specimen collection)



HKWC VRE outbreak on 22 Jan 2012
(from 14 Dec 2011 to 22 Jan 2012, 39 days)

Total record tracing:
379 patients + 113 patients = 492

VRE screening:
244 patients + 137 patients = 381

Secondary asymptomatic VRE cases:
9 patients + 1 patients = 10

Overall clinical attack rate: 2.6% (10/381)

Line listing of 10 patients with VRE colonization at a surgical ward C4, TWH

Case (sex/age)	Surgical team	Underlying diagnosis	Presence of indwelling device	Use of antibiotics during outbreak period (day)	Outcome
1 (M/71)	Colorectal	Ca colon with multiple metastasis	Colostomy, PCN	Ertapenem (7), Tienam (11)	Survived
2 (M/74)*	Hepatobiliary	Terminal Ca liver	Foley's catheter	Ertapenem (9), Tienam (6), Tazocin (16), Ampicillin & Cloxacillin (7)	Died as result of underlying disease
3 (F/77)	Hepatobiliary	Cholangiocarcinoma	PTBD, Foley's catheter	Augmentin (25), Ertapenem (13), Tienam (2)	Survived
4 (M/87)	Urology	Ca ureter, dementia, CVA	Foley's catheter	Augmentin (18), Tazocin (3)	Survived
5 (M/72)	Hepatobiliary	Ca liver, Parkinson's disease	PTBD	Cefuroxime & Metronidazole (4), Timentin (18), Tazocin (2), Tienam (14), Vancomycin (18)	Survived
6 (M/78)	Urology	Ca prostate, COPD	Nil	Augmentin (24), Ciprofloxacin & Metronidazole (4)	Survived
7 (F/82)†	Hepatobiliary	Liver cirrhosis, DM	Foley's catheter	Levofloxacin (4), Timentin (10), Vancomycin (17)	Survived
8 (F/40)	Hepatobiliary	Necrotizing pancreatitis	Abdominal drain; Broviac catheter	Ceftazidime (20), Tienam (10), Colistin (13), Timentin (5), Piperacillin (7)	Survived
9 (M/81)	Urology	Renal cell carcinoma	Foley's catheter	Ciprofloxacin (3), Levofloxacin (14), Septrin (2), Sulperazone (12)	Survived
10 (M/83)†	Hepatobiliary	Ca pancreas	Foley's catheter	Cefuroxime & Metronidazole (7), Timentin (13), Tazocin (6)	Survived

Note. * exogenous case from Hospital A; †referring from residential care home for elderly; Ca, carcinoma, COAD, chronic obstructive pulmonary disease; CVA, cerebrovascular accident; DM, diabetic mellitus; PCN, percutaneous nephrostomy urine; PTBD, percutaneous transhepatic biliary drainage

Chin Med J (Engl). 2012 Oct;125(19):3450-7.

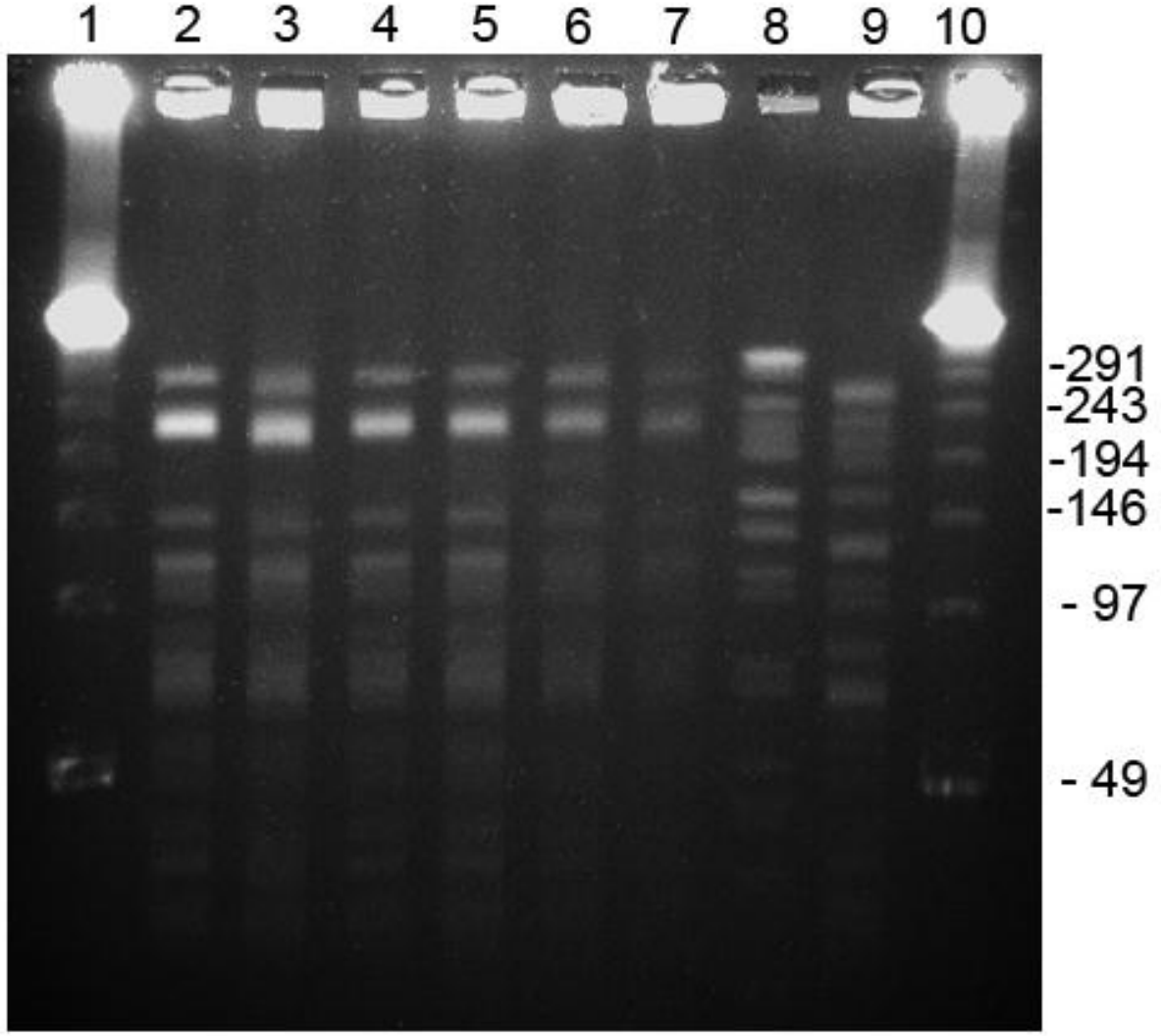
Case-control analysis for VRE colonization at a surgical ward C4, TWH

	VRE positive: case (n=10)	VRE negative: control (n=120)	p value
Age (mean ± SD)	74.5 ± 13.1	66.1 ± 13.5	0.061
Male sex	7 (70%)	92 (76.7%)	0.635
Hospitalization in the past 12 months	6 (60%)	73 (60.8%)	0.959
Cumulative length of stay, day (mean ± SD) during outbreak period	12.1 ± 9.3	4.6 ± 5.2	<0.001
Referring from RCHE	2 (20%)	8 (6.7%)	0.128
Chronic cerebral conditions*	2 (20%)	2 (1.7%)	0.001
Chronic cardiopulmonary conditions†	3 (30%)	5 (4.2%)	0.001
Malignancy	8 (80%)	16 (13.3%)	<0.001
Presence of urinary catheter	8 (80%)	23 (19.2%)	<0.001
Presence of wound or ulcer	4 (40%)	1 (0.8%)	<0.001
Antibiotics therapy during VRE outbreak			
Penicillin group	1 (10%)	2 (1.7%)	0.092
β-lactam / β-lactamase inhibitors	8 (80%)	45 (37.5%)	0.009
Cephalosporin group	2 (20%)	44 (36.7%)	0.290
Carbapenem group	5 (50%)	4 (3.3%)	<0.001
Fluoroquinolones	3 (30%)	6 (5.0%)	0.003
Vancomycin	2 (20%)	2 (1.7%)	0.001

Chin Med J (Engl). 2012 Oct;125(19):3450-7.

PFGE patterns of the clinical strains of VRE

PFGE patterns of *Sma*I-digested DNAs of VRE (*Enterococcus faecium)*



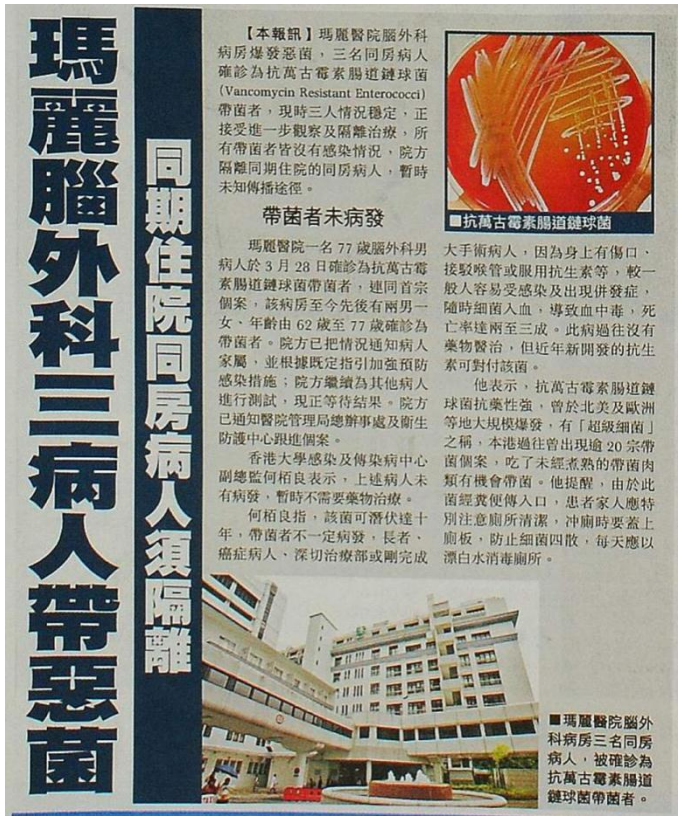
ORIGINAL RESEARCH ARTICLE

March 2009

Successful control of vancomycin-resistant *Enterococcus faecium* outbreak in a neurosurgical unit at non-endemic region

ST 78 – related to mainland China

VCC Cheng[1,2], JFW Chan[1], JWM Tai[2], YY Ho[2], IWS Li[1], KKW To[1], PL Ho[1] and KY Yuen[1]



瑪麗腦外科三病人帶惡菌

同期住院同房病人須隔離

【本報訊】瑪麗醫院腦外科病房爆發惡菌，三名同房病人確診為抗萬古霉素腸道鏈球菌(Vancomycin Resistant Enterococci)帶菌者，現時三人情況穩定，正接受進一步觀察及隔離治療，所有帶菌者皆沒有感染情況，院方隔離同期住院的同房病人，暫時未知傳播途徑。

帶菌者未病發

瑪麗醫院一名77歲腦外科男病人於3月28日確診為抗萬古霉素腸道鏈球菌帶菌者，連同首宗個案，該病房至今先後有兩男一女、年齡由62歲至77歲確診為帶菌者。院方已把情況通知病人家屬，並根據既定指引加強預防感染措施；院方繼續為其他病人進行測試，現正等待結果。院方已通知醫院管理局總辦事處及衞生防護中心跟進個案。

香港大學感染及傳染病中心副總監何栢良表示，上述病人未有病發，暫時不需要藥物治療。

何栢良指，該菌可潛伏達十年，帶菌者不一定病發，長者、癌症病人、深切治療部或剛完成大手術病人，因為身上有傷口、接駁喉管或服用抗生素等，較一般人容易受感染及出現併發症，隨時細菌入血，導致血中毒，死亡率達兩至三成。此病過往沒有藥物醫治，但近年新開發的抗生素可對付該菌。

他表示，抗萬古霉素腸道鏈球菌抗藥性強，曾於北美及歐洲等地大規模爆發，有「超級細菌」之稱，本港過往曾出現逾20宗帶菌個案，吃了未經煮熟的帶菌肉類有機會帶菌。他提醒，由於此菌經糞便傳入口，患者家人應特別注意廁所清潔，沖廁時要蓋上廁板，防止細菌四散，每天應以漂白水消毒廁所。

■抗萬古霉素腸道鏈球菌

■瑪麗醫院腦外科病房三名同房病人，被確診為抗萬古霉素腸道鏈球菌帶菌者。

Extensive contact tracing:

A total of 192 patients were screened with three (1.6%) of them being positive for VREfm in QMH & TWH

A total of 440 (QMH) and 66 (TWH) environmental samples were collected

2 taken in TWH (bedside table and milk container): positive for VREfm
(in both direct inoculation and after broth enrichment culture)

Emerg Health Threats J. 2009;2:e9.

Patient Selection Panel - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Search Favorites

Address http://epr.home/epr_ind/FrmPatientSelectionPanel.aspx Go

Electronic Patient Record

Dis. Pat. & In-ward Pat. List

Hospital: QMH **Ward:**

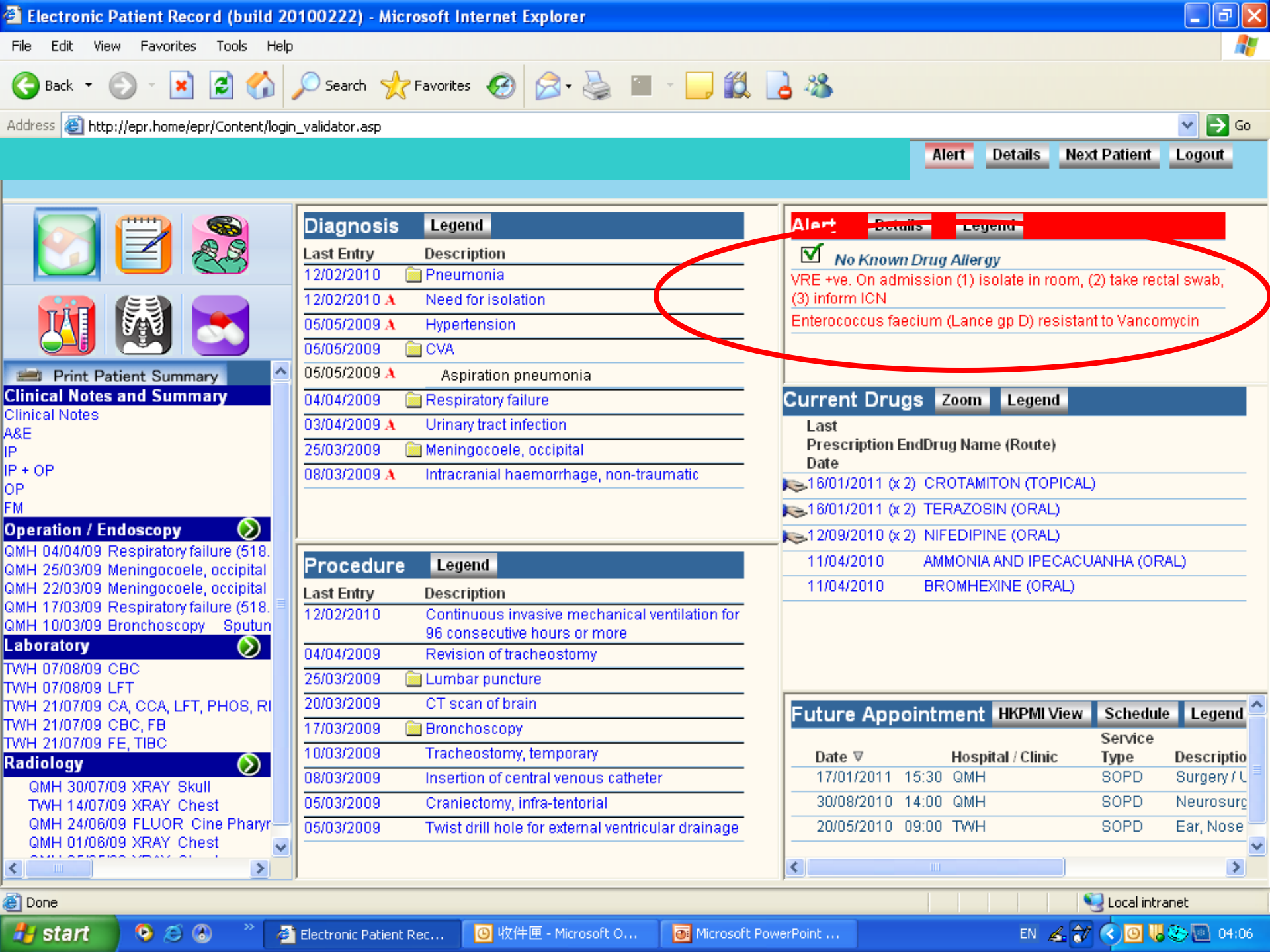
Specialty: **Team:**

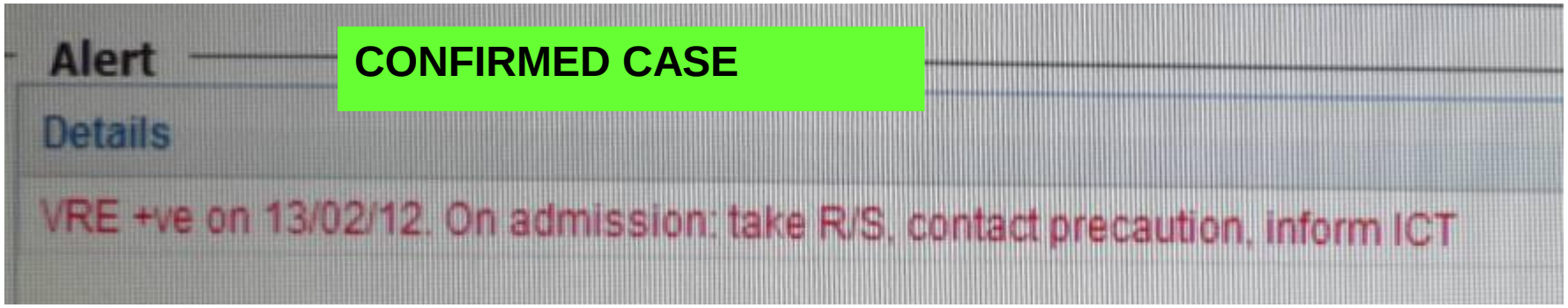
CMS alert !

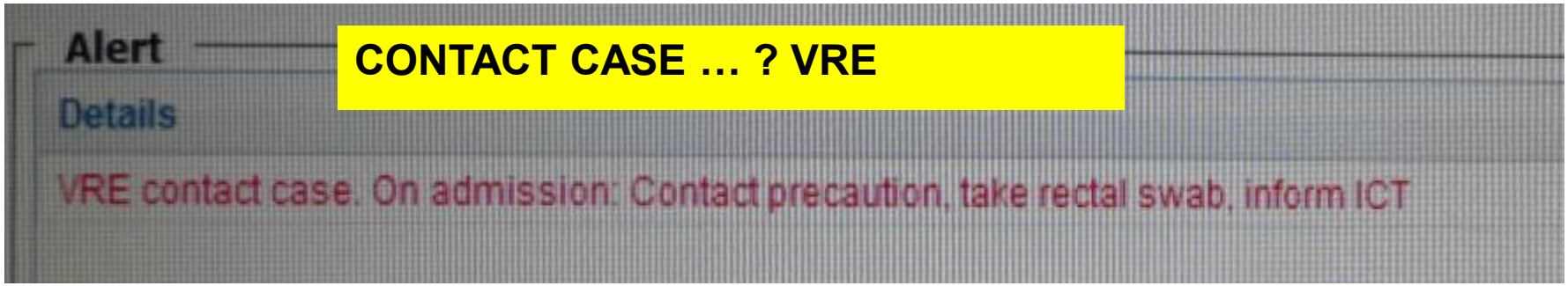
Select Patient: Search Patient Logout

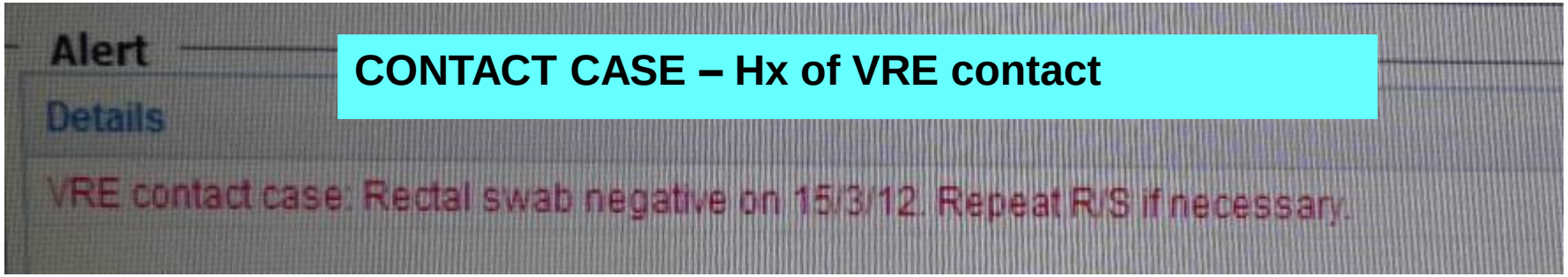
QMH CHENGCCV Local intranet

start Patient Selection Pan... EN 04:05


Electronic Patient Record (build 20100222) - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://epr.home/epr/Content/login_validator.asp
Go
Alert Details Next Patient Logout
Print Patient Summary
Clinical Notes and Summary
Clinical Notes
A&E
IP
IP + OP
OP
FM
Operation / Endoscopy
QMH 04/04/09 Respiratory failure (518.
QMH 25/03/09 Meningocoele, occipital
QMH 22/03/09 Meningocoele, occipital
QMH 17/03/09 Respiratory failure (518.
QMH 10/03/09 Bronchoscopy Sputun
Laboratory
TWH 07/08/09 CBC
TWH 07/08/09 LFT
TWH 21/07/09 CA, CCA, LFT, PHOS, RI
TWH 21/07/09 CBC, FB
TWH 21/07/09 FE, TIBC
Radiology
QMH 30/07/09 XRAY Skull
TWH 14/07/09 XRAY Chest
QMH 24/06/09 FLUOR Cine Pharyr
QMH 01/06/09 XRAY Chest
Diagnosis Legend
Last Entry Description
12/02/2010 Pneumonia
12/02/2010 A Need for isolation
05/05/2009 A Hypertension
05/05/2009 CVA
05/05/2009 A Aspiration pneumonia
04/04/2009 Respiratory failure
03/04/2009 A Urinary tract infection
25/03/2009 Meningocoele, occipital
08/03/2009 A Intracranial haemorrhage, non-traumatic
Procedure Legend
Last Entry Description
12/02/2010 Continuous invasive mechanical ventilation for 96 consecutive hours or more
04/04/2009 Revision of tracheostomy
25/03/2009 Lumbar puncture
20/03/2009 CT scan of brain
17/03/2009 Bronchoscopy
10/03/2009 Tracheostomy, temporary
08/03/2009 Insertion of central venous catheter
05/03/2009 Craniectomy, infra-tentorial
05/03/2009 Twist drill hole for external ventricular drainage
Alert Details Legend
No Known Drug Allergy
VRE +ve. On admission (1) isolate in room, (2) take rectal swab, (3) inform ICN
Enterococcus faecium (Lance gp D) resistant to Vancomycin
Current Drugs Zoom Legend
Last Prescription End Date
Drug Name (Route)
16/01/2011 (x 2) CROTAMITON (TOPICAL)
16/01/2011 (x 2) TERAZOSIN (ORAL)
12/09/2010 (x 2) NIFEDIPINE (ORAL)
11/04/2010 AMMONIA AND IPECACUANHA (ORAL)
11/04/2010 BROMHEXINE (ORAL)
Future Appointment HKPMI View Schedule Legend
Date Hospital / Clinic Service Type Description
17/01/2011 15:30 QMH SOPD Surgery / U
30/08/2010 14:00 QMH SOPD Neurosurg
20/05/2010 09:00 TWH SOPD Ear, Nose
Done
Local intranet
start
Electronic Patient Rec...
收件匣 - Microsoft O...
Microsoft PowerPoint ...
EN
04:06


Alert
CONFIRMED CASE
Details
VRE +ve on 13/02/12. On admission: take R/S, contact precaution, inform ICT


Alert
CONTACT CASE … ? VRE
Details
VRE contact case. On admission: Contact precaution, take rectal swab, inform ICT


Alert
CONTACT CASE – Hx of VRE contact
Details
VRE contact case. Rectal swab negative on 15/3/12. Repeat R/S if necessary.