Unique Patient Identification

The Pioneer experience in NTEC

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NTEC Quality & Risk Management
11 May 2010

USA
Joint Commission on Accreditation of Healthcare Organisation (JCAHO)

National Patient Safety Goals 2008, 2009, 2010

Goal 1	**Improve the accuracy of patient identification.**
Goal 2	Improve the effectiveness of communication among caregivers.
Goal 3	Improve the safety of using medications.
Goal 7	Reduce the risk of health care-associated infections.
Goal 8	Accurately and completely reconcile medications across the continuum of care.
Goal 9	Reduce the risk of patient harm resulting from falls.
Goal 13	Encourage patients' active involvement in their own care as a patient safety strategy.
Goal 15	The organization identifies safety risks inherent in its patient population.
Goal 16	Improve recognition and response to changes in a patient's condition.

Hong Kong Hospital Authority Patient Care Related Risks 2009

1. Misidentification	• **Patient** • **Specimen**
2. Medication	• High risk drugs / process • Drug reconciliation on admission / discharge
3. Infection	• HAI- MRSA • HAI- Surgical site infection
4. Patient's condition	• In-Patient suicide • Patient fall
5. Patient Care process	• Patient assessment (identify critical ill patient) • Communication between caregivers • Safe Surgery

Safe Culture
Safe Design
Safe Practice

1. Protect **our patients** from adverse incident

2. Protect **our staff** from making error

A = B → C

Scan ID# on A and B, if match produce a label (C)

A
(ID on wristband)

=

B
(ID on Job sheet/form)
T&S request form (phase 1)
Last Office form (phase 2)
Investigation order (phase 3)
Medication Chart

→

C
Label for specimen

A
(ID on wristband)

=

B
(ID on Objects)
Blood product (phase 1)
Body (phase 2)
Chemotherapy drug

→

C
Label for record purpose

Equipment

Wristband printer

Approx. HK$4600

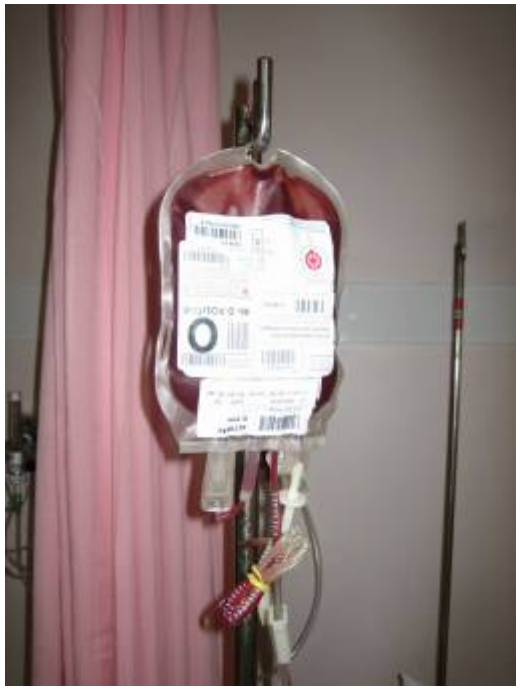
2D Barcode Scanner
Bedside Printer

1 set per 10 beds

Scanner @ HK$5600 each
Printer @ HK$3200 each

September 2004

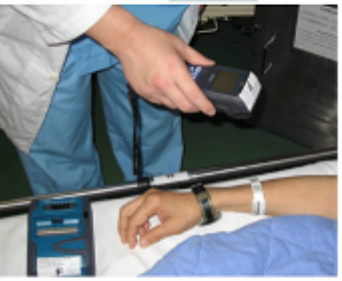
Blood sampling
for cross-match
was taken from the
wrong patient



Hence blood of the
wrong blood group
was given to the patient

(1) Blood taking process for T&S

Step 1:
Scan patient's ID
Barcode on the bracelet



Step 2:
Scan the 2D barcode
on the request sheet

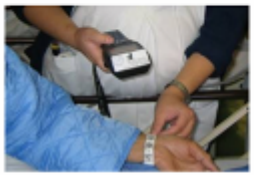
If the 2 ID # match

Step 3:
A label
printed
at the bedside

Step 4:
Immediately affix
the label onto
specimen tube

2. Blood administration (verify patient's identification)

Step 1
Scan patient's ID
label on wristband



Step 2
Scan patient's ID on
the compatibility label

Step 3
Scan WBN number

If the 2 ID #
and
WBN #
matched

Step 4
A label will be
generated

Step 5
Stick the label onto
transfusion note

Phase 1: April 2007

Started at NTEC

X-match and Blood transfusion

	Pre	Post
Misidentification during blood taking for cross match	6 cases in 6 months	0 cases * (4 cases) in 4 years
Blood administration to wrong patient	0	0

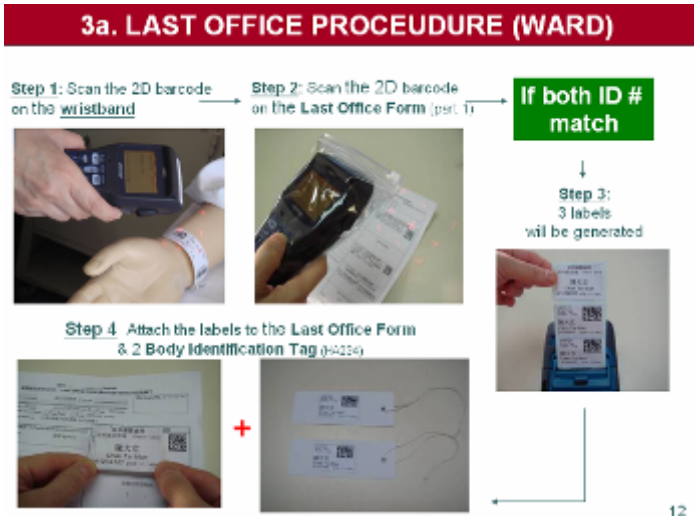
*** 4 cases of error where 2D barcode scanning not used (3 A&E, 1 Ward follow up)**

**** 10 T&S specimens arrived at lab without label !!!!**

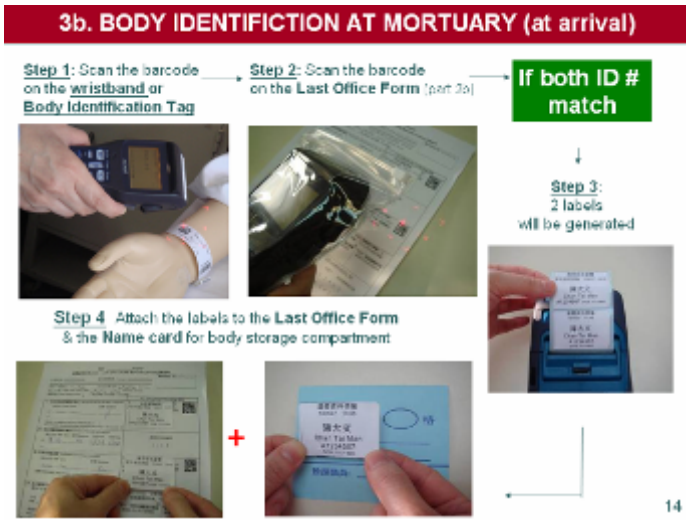

一格兩屍 職員失誤 家屬揭發
威院混帳
領錯遺體火化
April 2007
領錯遺體燒錯屍
一格放兩屍威院取錯屍
殯儀工沒核對手帶 疏忽停職
一家燒錯屍 一家領不到屍
沒有遺體的喪禮

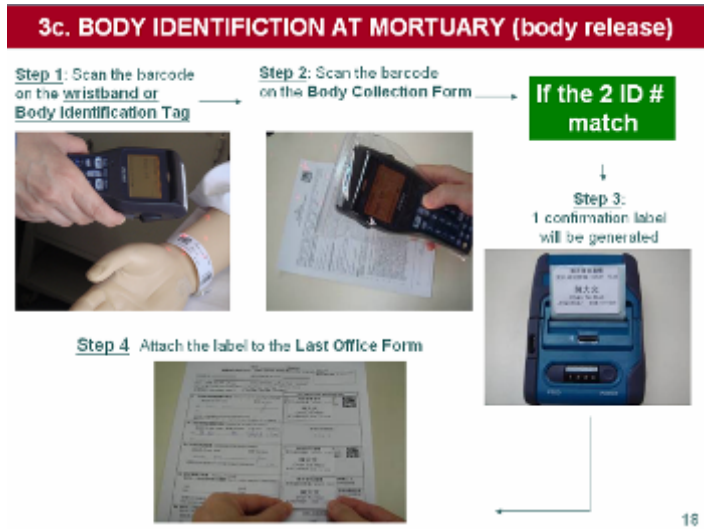
Phase 2: October 2007 implemented in NTEC

Body identification for Last office from ward to mortuary



	Pre	Post
Misidentification of dead body leading to wrong body released	2 cases in 4 years	0 cases in 4 years



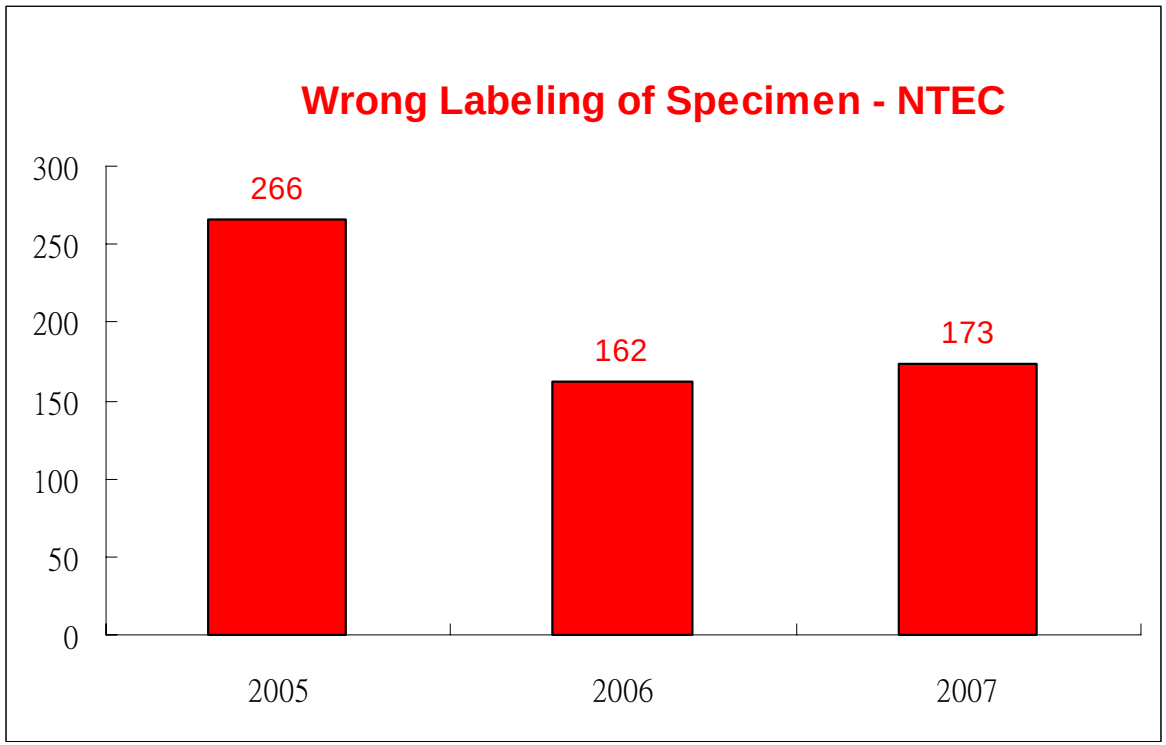


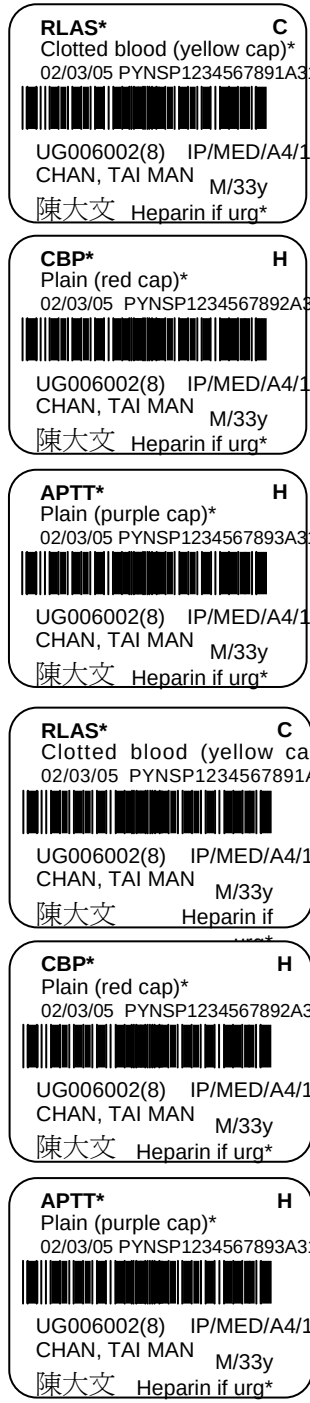
Phase 3 – started in June 2008 at PWH

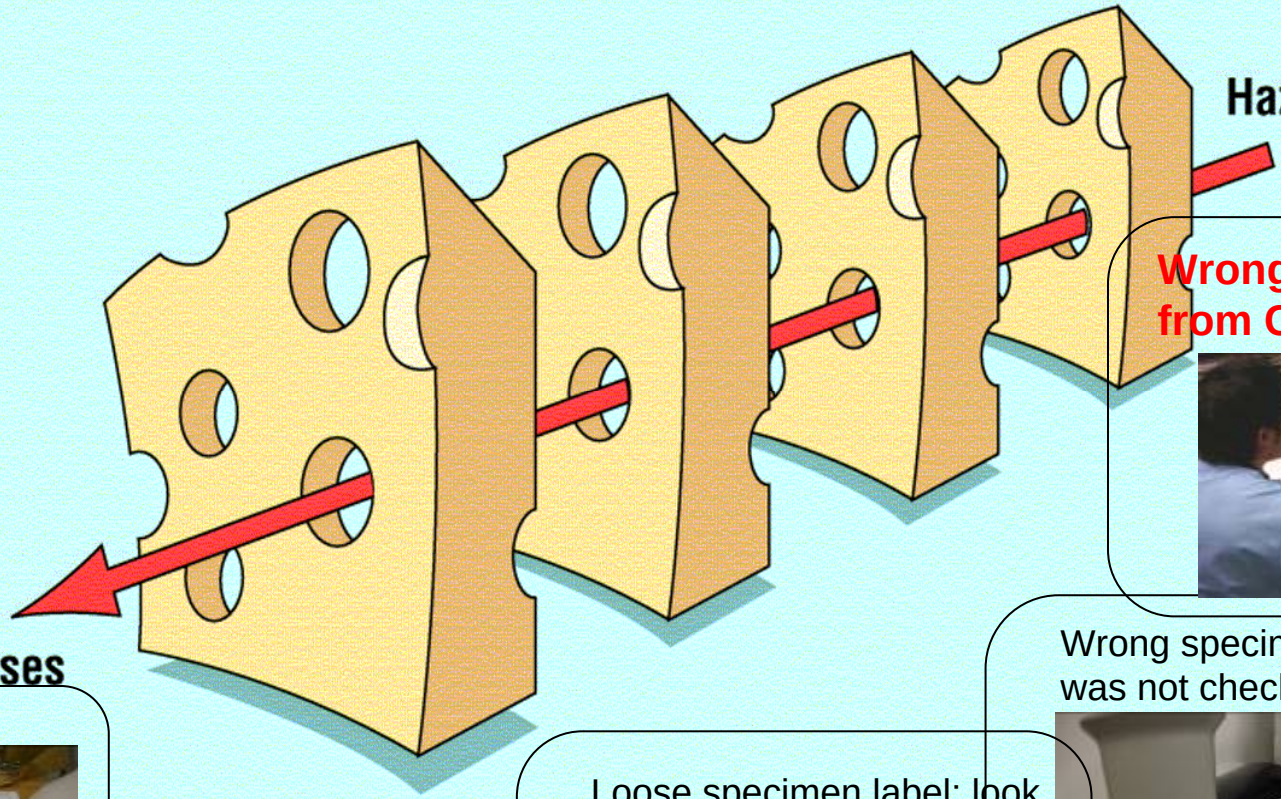
Risk reduction program for a not uncommon error

- **Misidentification of patient**
- **Using wrong label**

Potential consequence +++







Wrong patient selected from CMS

Wrong specimen label was not checked

Loose specimen label; look alike name; etc. put in a tray

Wrong labeling

Blood taking from wrong patient

Phase 3 - Generating specimen labels at bedside

1

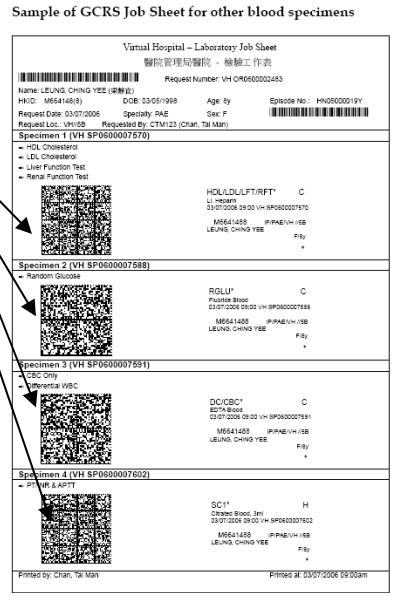
Scan 2D barcode
on patient wristband

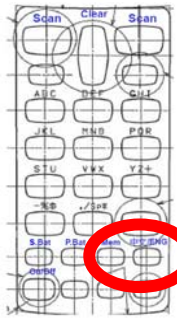
2

Scan 2D barcode(s) on job sheet

- Repeat scanning
(if more than one test)

- When finished scanning
all the job barcodes
press [ENT]

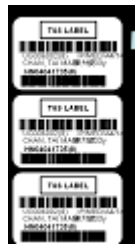


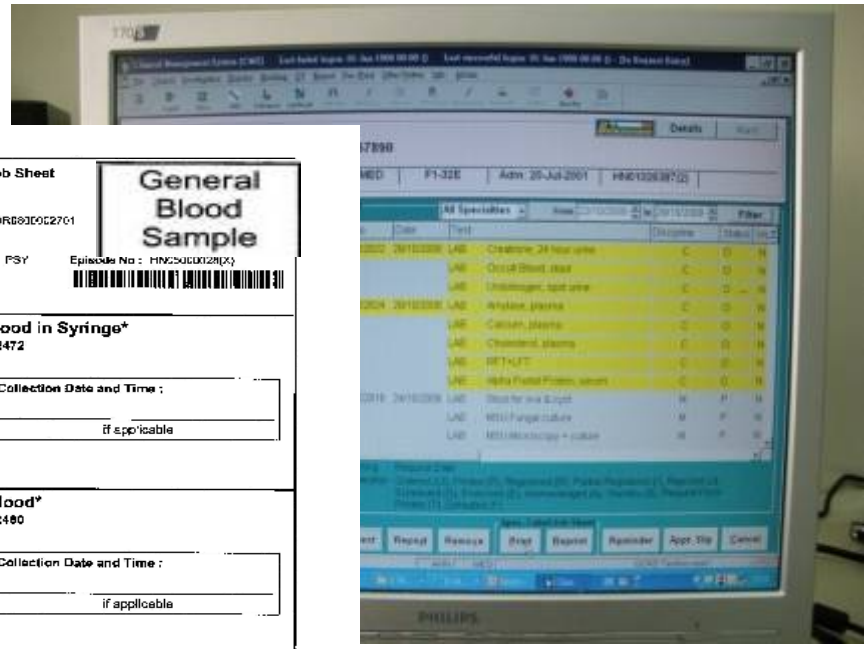


If IDs matched

3

Label(s) will be generated
by the printer at bedside





Order investig
via CMS-GCR

Virtual Hospital 3 - Laboratory Job Sheet
醫院 - 檢驗工作表

General Blood Sample

Request Number : VH ORB80D02701
Name : CHAN, TONG TO (陳棠滔)
HKID : M180809(0) Sex : F DOB : 16/11/1984 Age : 23y Spec : PSY Episode No : HN250D0028(X)
Request Date : 01/04/2008 Requested Loc : V-W5A
Requested By : @CMSIT (CMS IT (VH3)) 2300 3001

Bld gas, venous*
Remarks : Venous*
Heparin Blood in Syringe*
VH SP0800002472
Collected By : Collection Date and Time :
Name and Signature if applicable
> Blood gas, venous

Spot Glu*
Remarks : Spot Glu.*
Fluoride Blood*
VH SP0800002480
Collected By : Collection Date and Time :
Name and Signature if applicable
> Glucose, spot, plasma

K/Ca/Cl/Cr/Na/LFT/PO4/RFT*
Remarks :
Clotted Blood in Gel Tube*
VH SP0800002498A
Collected By : Collection Date and Time :
Name and Signature If applicable
> Calcium, serum
> Chloride, serum
> Creatinine, serum
> Liver function tests
> Phosphate, serum
> Potassium, serum
> Renal function tests
> Sodium, serum

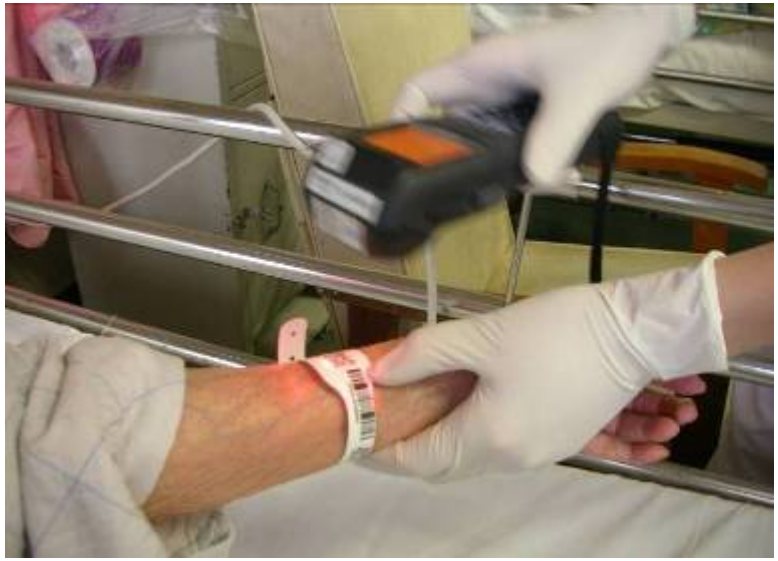
K/Ca/Cl/Cr/Na/LFT/PO4/RFT*
Remarks :
Clotted Blood in Gel Tube*
VH SP0800002498B
Collected By : Collection Date and Time :
Name and Signature if applicable
> Sodium, serum
> Renal function tests
> Potassium, serum
> Phosphate, serum
> Liver function tests
> Creatinine, serum
> Chloride, serum
> Calcium, serum

Printed By: CMS IT (VH3)

A

at the work station.

Scan patient's wristband 2D barcode



Scan 2D label(s) on job sheet

Press [Enter]

If the ID numbers match, labels will be printed

When a specimen is available, nurse will retrieve the job sheet

Scan Patient wristband 2D barcode

Scan job sheet 2D job label

If the ID numbers match, a label will be printed

Implementation of Phase 3 at NTEC

NDH 2009 Feb

AHNH 2008 Dec

TPH 2009 Jun

Accelerated roll-out across all 7 NTEC hospitals

140 in-patient wards in NTEC implemented the phase 3 initiative

Supported by purchase of extra 2D scanner and printer from NTEC Annual plan Q&RM program 2008

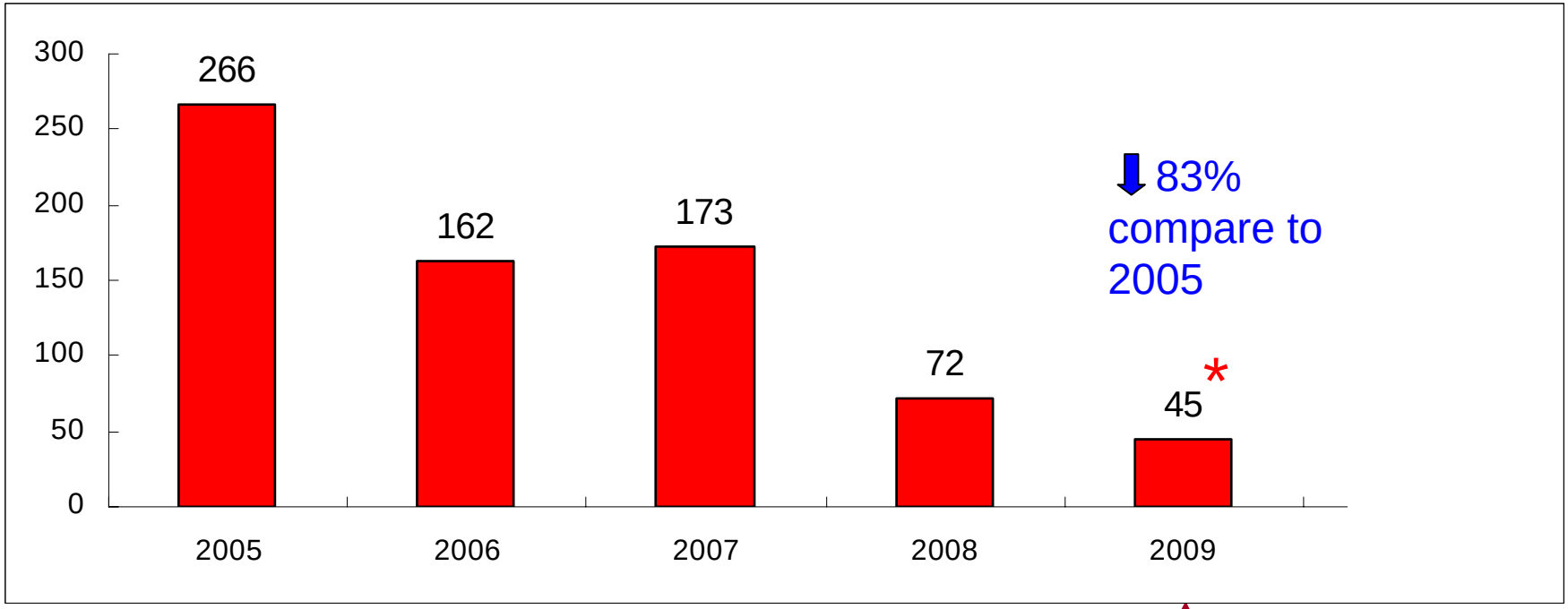
PWH 2008 June

SH BBH SCH 2009 Sep

Incident related to misidentification of specimen @ NTEC

(wrong label used or specimen taken from wrong patient)

2005 - 2009



Implementation of phase III	PWH June 08	AHNH Dec 08	NDH Feb 09	TPH Jun 09	SH/BBH/SCH Sept 09

*** 2009: 41 incidents reported from clinical areas not yet using the 2D barcode system**

- A&E 11, OT 1, special clinics 10, Point of care testing 10, wrong CMS request 3, double labeling 1
- extended care hospital (before implementation) 9

Number of misidentification (case) before and after Implementation of 2D barcode scanning

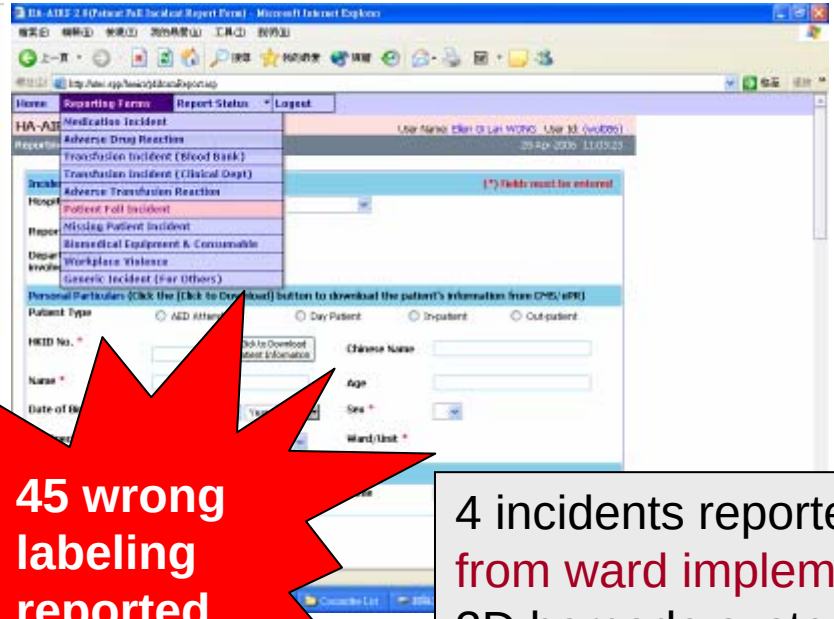
	-6 m	-5 m	-4 m	-3 m	-2 m	-1 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	11 m	10 m	12 m
							Jul 08											
PWH 25.06.2008	8	4	8	10	7	4	1	0	1	0	0	0	0	0	0	0	0	0
							Dec 08											
AHNH 08.12.2008	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0
							Feb 09											
NDH 09.02.2009	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0
							Jul 09											
TPH 22.06.2009	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0			
							Sep 09											
SH 07.09.2009	2	1	0	0	0	1	0	0	0	0	0	0	0					
							Sep 09											
BBH 08.09.2009	0	0	0	0	0	0	0	0	0	0	0	0	0					
							Sep 09											
SCH 09.09.2009	0	0	0	0	0	0	0	0	0	0	0	0	0					

*** Error still occurred at clinical areas <u>not</u> yet implemented 2D barcode system, e.g. A&E, point of care testing**

Number of misidentification (case) before and after Implementation of 2D barcode scanning

	-6 m	-5 m	-4 m	-3 m	-2 m	-1 m	1 m	2 m	3 m	4 m	5 m	6 m	7 m	8 m	9 m	11 m	10 m	12 m
							Jul 08											
PWH	8	4	8	10	7	4	1	0	1	0	0	0	0	0	0	0	0	0
25.06.2008								3	5	1	1	1	1		2		6	2
							Dec 08											
AHNH	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0
08.12.2008										1		2		1	1			
							Feb 09											
NDH	3	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0
09.02.2009									1									
							Jul 09											
TPH	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0			
22.06.2009																		
							Sep 09											
SH	2	1	0	0	0	1	0	0	0	0	0	0	0					
07.09.2009																		
							Sep 09											
BBH	0	0	0	0	0	0	0	0	0	0	0	0	0					
08.09.2009																		
							Sep 09											
SCH	0	0	0	0	0	0	0	0	0	0	0	0	0					
09.09.2009																		

*** Error still occurred at clinical areas <u>not</u> yet implemented 2D barcode system, e.g. A&E, point of care testing**



41 incidents reported from area not yet implementing 2D barcode system

45 wrong labeling reported in 2009

4 incidents reported from ward implemented 2D barcode system

11 from A&E (loose label used)

1 from OT (loose label used)

10 from ward while conducting POCT test on site

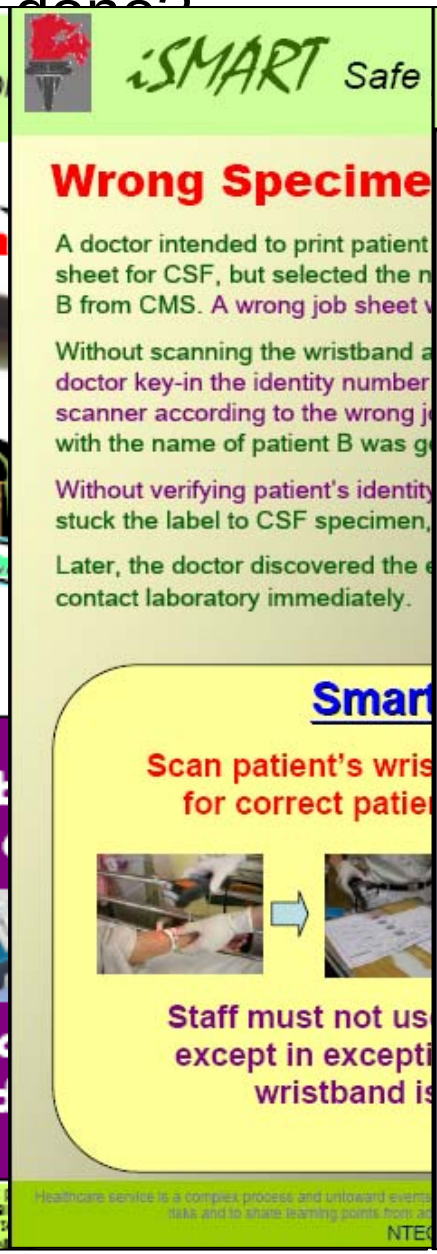
10 from SOPD / Day follow up

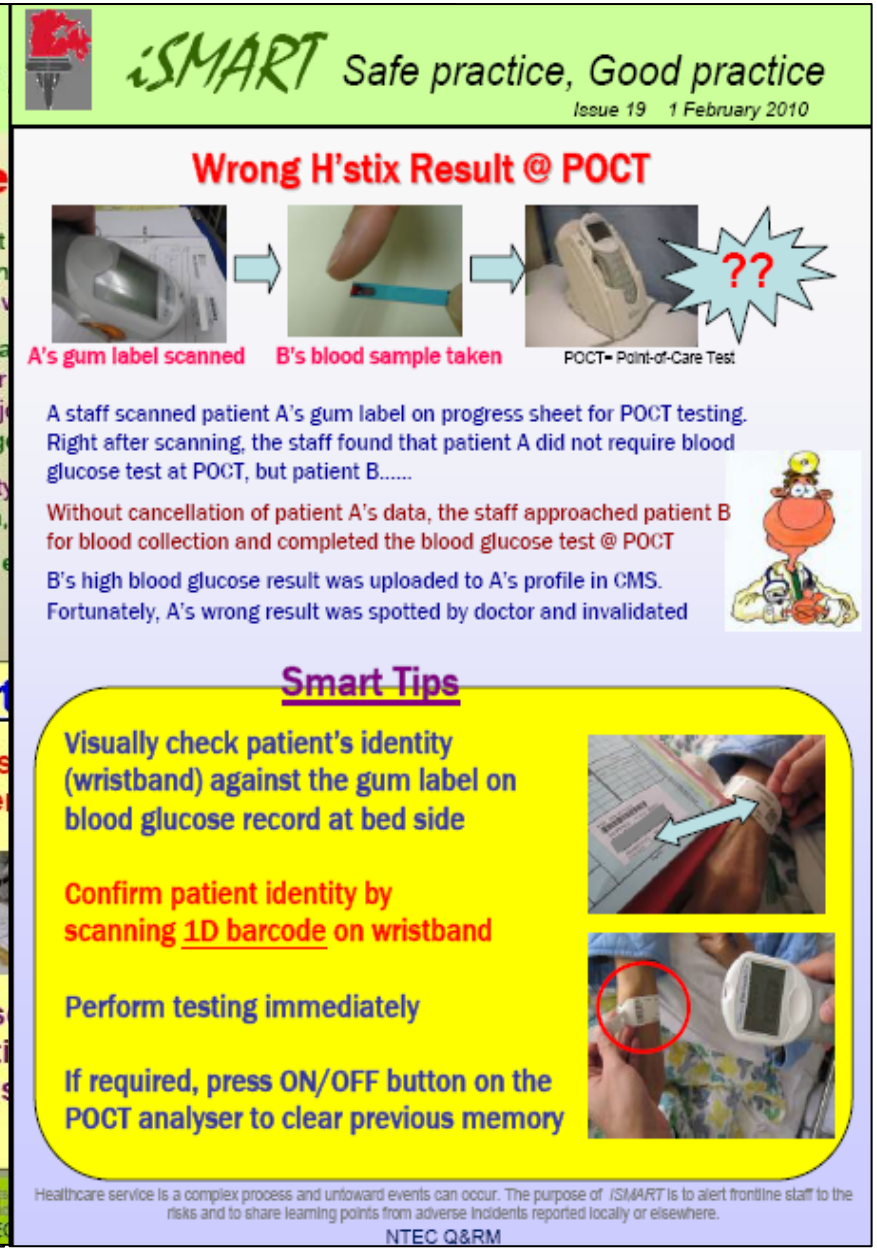
9 from Extended Care Hospitals (before roll out)

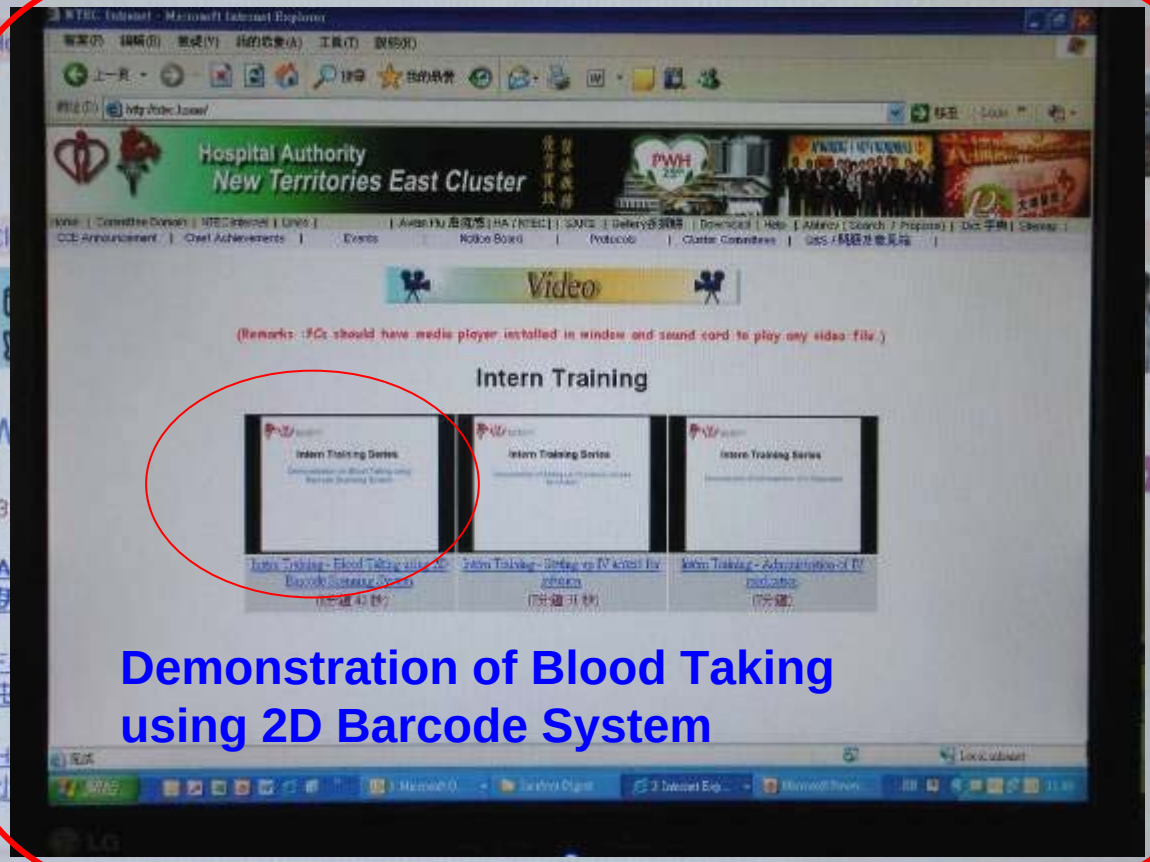
3 testing result found discrepancy and discovered that Intern printed job sheet with wrong patient name from CMS and entered wrong ID direct to scanne. Not verifying patient identity with 2D barcode scanner

1 specimen found double labeling – A phlebotomist reused a discarded specimen bottle

What have we done?



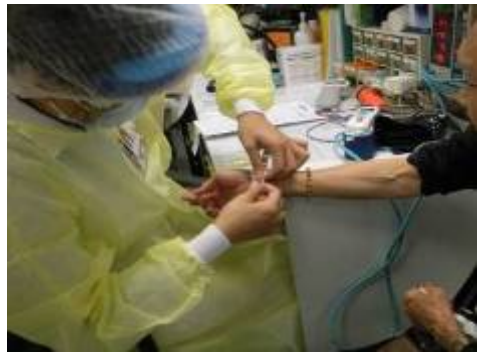



Hospital Authority
New Territories East Cluster
Video
(Remarks : PCs should have media player installed in window and sound card to play any video file.)
Intern Training
Demonstration of Blood Taking
using 2D Barcode System

What have we done?

UPI – pilot in NDH A&E since 1 December 2009

All patient attending A&E service will be put on a wristband with 2D barcode at Triage Station



If blood testing is required – staff proceed for testing requirement and verify patient identity with 2D barcode scanner

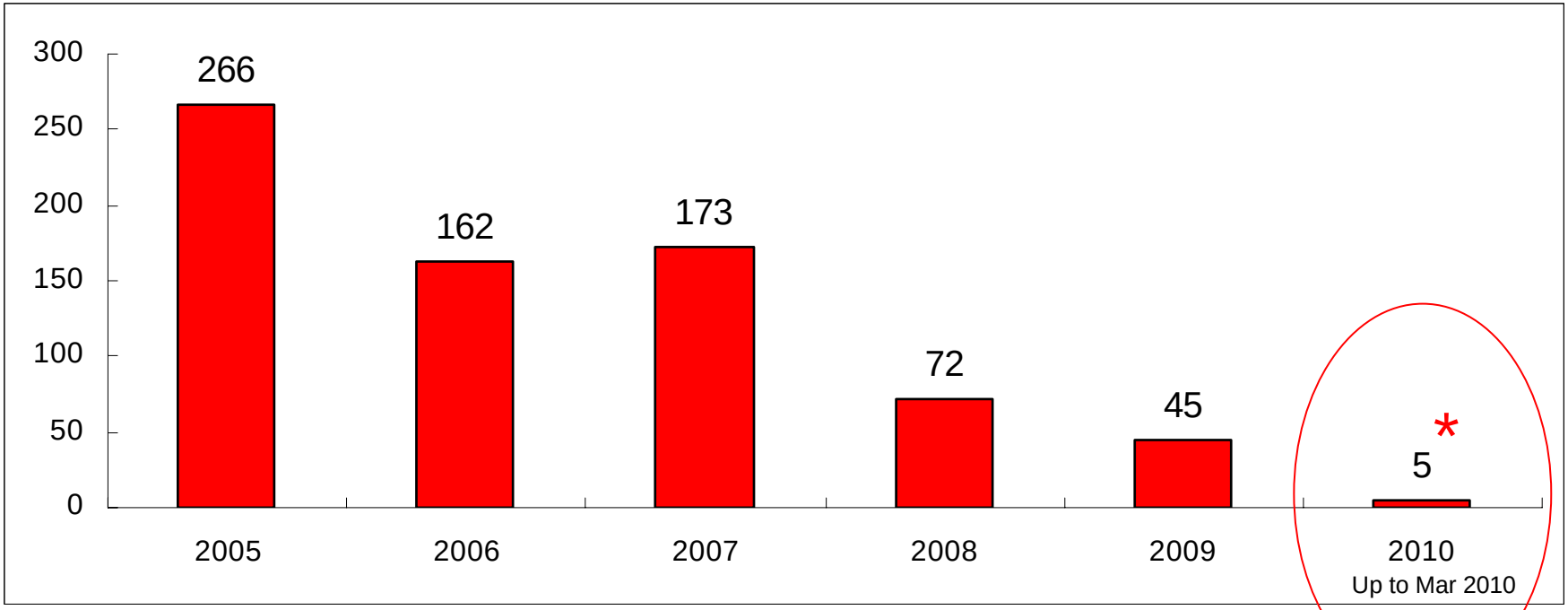
If admission is not required, the wristband will be discarded while leaving the hospital

~30% wristband discarded as scanning for testing verification were not necessary

Incident related to misidentification of specimen @ NTEC

(wrong label used or specimen taken from wrong patient)

2005 – Q1 / 2010



Implementation of phase III	PWH June 08	AHNH Dec 08	NDH Feb 09	TPH Jun 09	SH/BBH/SCH Sept 09

*** 2010 (up to March 2010) : 5 incidents reported**

- special clinics 1, Point of care testing 2, wrong CMS request 1, mixed up labels 1 (pre-print and mixed up)

Issue

Intern key-in patient's ID direct to 2D barcode scanner, and bypass the process of verification patient's identity at bed side → at Risk!!!

After discussion and further consideration (e.g. the frequent turnover of Intern),

the key-in function will be disabled in 2010.

Scanner and printer Repair / replacement

Statistic from April 2007 to September 2009 (30 months)

- No of scanner and printer in use @ NTEC = 477
- No. of scanner reported lost = 2
- No of call for repair / maintenance = 999
  - Average call for repair per set = 2
  - Average call for repair per ward = 7
- No. of printer battery replaced = 15
- No. of scanner battery replaced = 2

Conclusion


你今日嘟
左未呀


Yeah!
好嘢


犀利


Very
good


好好，
好方便


唔嘟唔舒服


Highly
recommended


excellent


Good!
好安全

Special Thanks to:

Dr. Fung Hong, CCE, NTEC

HCEs, NTEC

All COSs, DOMs, NTEC

Pathology Department, NTEC

All clinical staff (front line doctors, nurses, phlobotomist), NTEC

Quality & Risk Management Team, NTEC

CMS – NTEC Support Team

HAHO ITS CS7 team

HAHO Patient Safety & Risk Management Team