



Slide 1

Once again, thank you for the opportunity announced at the international exchange. I would like to report the status of the import and export in Japan.

There is a national movement to provide efficient medical care to clarify under the guidance of the Ministry of Health, Labour and Welfare, the functions of the hospital, in Japan has been promoting the specialized functions of each facility. Hospitals who work for me, we are strengthening cooperation of hospitals and clinics and medical information of the surrounding area.

As a tool, and has been growing at the same time use the convenience of a portable medium has progressed, various problems have been seen in the handling. Future, we will introduce one end of the flow of digitized spread further.

Standards in Japan a portable medium

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□ Standard Ministry of Health, Labour and Welfare

□ DICOM

HS001 Digital Imaging and Communications in Medicine (DICOM)

DICOM Part 10: Media Storage and File Format for Media Interchange

DICOM Part 11: Media Storage Application Profiles

DICOM Part 12: Media Formats and Physical Media for Media Interchange



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Slide 2

I will introduce a standard for a portable medium in Japan.

Adopted by the Ministry of Health, Labour and Welfare as the DICOM standard in March 2010. In a portable medium is related to the DICOM Part 10,11,12. This is to identify and define the type of media, primarily the logical structure of the file.

Standards in Japan a portable medium

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□ Standard Ministry of Health, Labour and Welfare

□ March 2010

HS009 IHE: PDI(Portable Data for Images)

Integration Profile, and Its Application Guideline

Summary

The guideline defines where and how to store them in portable media, by which the data exchange is made. The contents comprise where in the media and in what directory the DICOM images and their directory DICOMDIR are to be located.; Also application guideline shows appropriate application of it.



It is not a standard to ensure the import.

Slide 3

Next, I adopted the operational guidelines "and its portable medical imaging" IHE Integration Profiles in March 2010. This is to guide the correct location folder structure and DICOM DIR, of DICOM data of CD-R a portable medium. The intent is to print or exchange images or diagnostic reports reliably. I think it can be considered as something that limits the exchange of information to some extent in DICOM, to capture the appropriate treatment as operational guidelines.

In other words, there is no guarantee as to the import of the data, these are I think it's minimum commitments to the environment that can be imported to the smooth construction.

Agreement of the medium to be passed to the patient medical images.

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November 2011

If you want to pass to the patient a medium (CD-R) containing the medical image information, in order to consider the situation of the recipient, to prevent confusion in the clinical setting, you shall agree to the following matters, known to a member of this .

(subject)

If you go through the hands of the patient, to provide a CD-R that contains information, such as medical images to other medical facilities. If, however, such as CD-R, based on prior consultation and to provide specific medical facilities, etc., know about the contents that the recipient, you are not subject to this agreement. It should be noted that, even if the patient wishes to have, if there is no prior agreement with the recipient, such as medical facilities, you will apply this Agreement.

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In addition, the "agreements with medical imaging medium to be passed to the patient" from the Society and related industry groups in November 2011 will be published seeking well-known to each member.

Slide shows for the details.

Summing up

If you want to pass to the patient a CD-R that contains a medical image, well known to members to seek care in the receiver side, to prevent confusion.

And If there is no agreement between the facility in advance, and ". Applying this Agreement receiver side to prevent bother", for the facility to create a CD-R, some facilities receiving end so that no bother I have a set of items. However, if you have determined that the two facilities of the feed side and the receiver side prior consultation, I would not be applicable.

Excerpt

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It is desirable to meet the following matters.

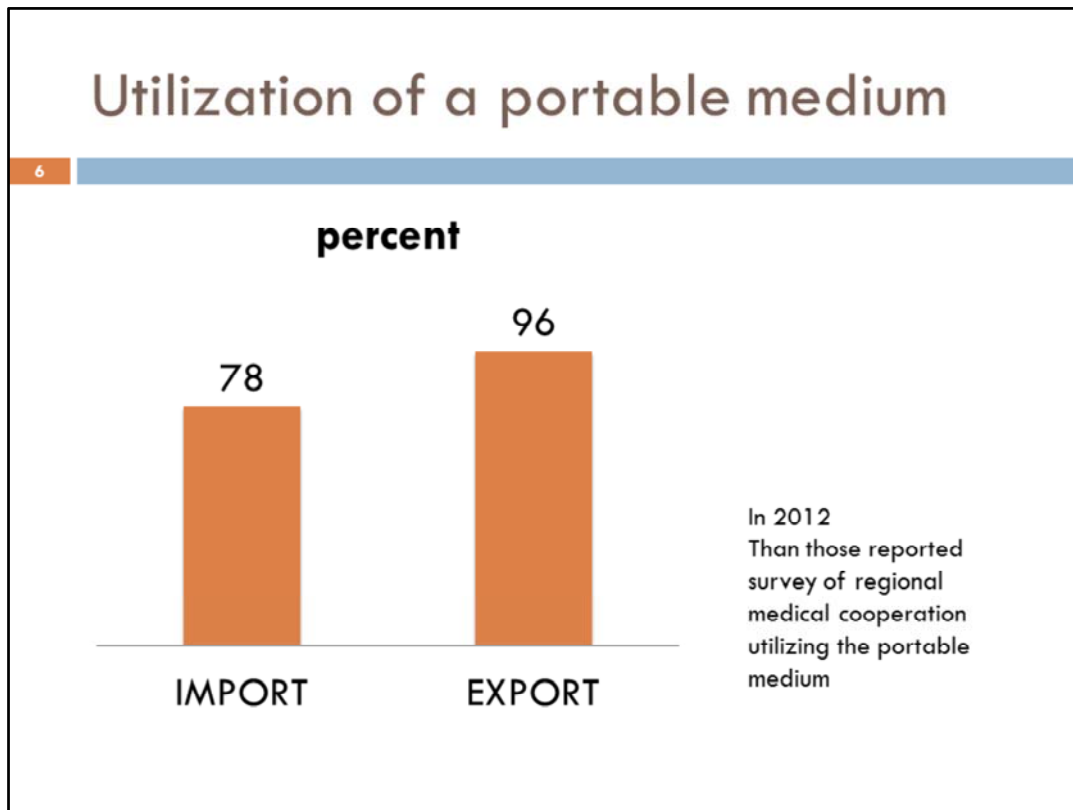
1. That it is compliant with IHE PDI of integration profiles (Portable Data for Imaging).
 - Auto Start is prohibited.
 - Do not compress the image information.
2. That does not violate the standards DICOM.
3. Support for an operation that you observe the following.
 - Patient ID and one to a single CD-R
 - It does not ship with a large amount of image data such as Thin Slice and volume data, and video without agreement.
 - Shall be indicated on the surface of CD-R patient name, and contact name and medical sources.
4. As far as possible, be carried out under appropriate reference using an application such as PACS, which is used in the receiving side.
5. Files other than those listed in the IHE PDI (PDF, JPEG, text, spreadsheet) If either to another disk, placed in a CD-R the same, PDI, or has been shown in the SS-MIX as indicated by that, just put Otherfiles / folders, stated in the disk surface or README.TXT that.

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The slide shows a summary of the agreement, and extract the contents,

- Prohibition of automatic start
- The data does not include violations of DICOM
- A CD-R is one of the single patient ID
- The Thin Slice and videos are not included.

Has not become clear method for generating the receiver side, in other words, there is a storage system electronic each facility is constructed and operated the system electronically stored for each already here, it is possible that these changes are accompanied by I feel that, the decision can not be clear procedures for.

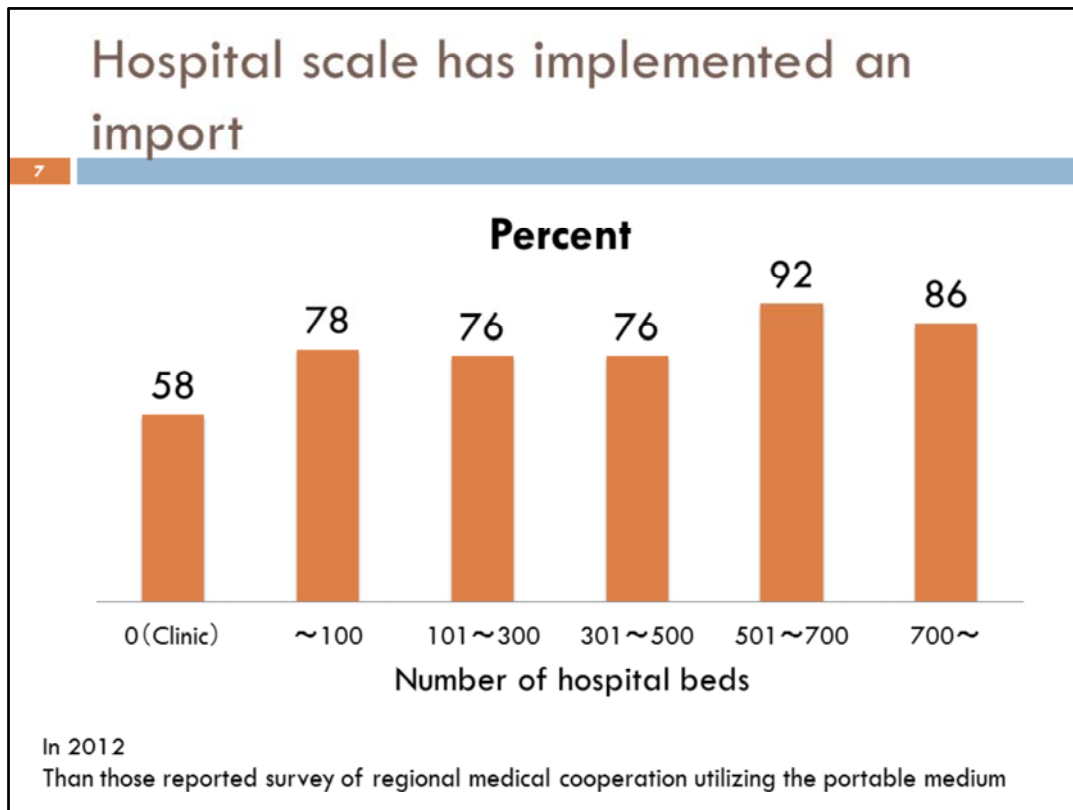


Slide 6

Data shown from this, the "Survey of cooperation regional health information using a portable medium" that between January and March 2012, Vice-President Konishi Management Society of Medical Image Japan was compiled mainly based on the information of the facility 383 I am based on the data.

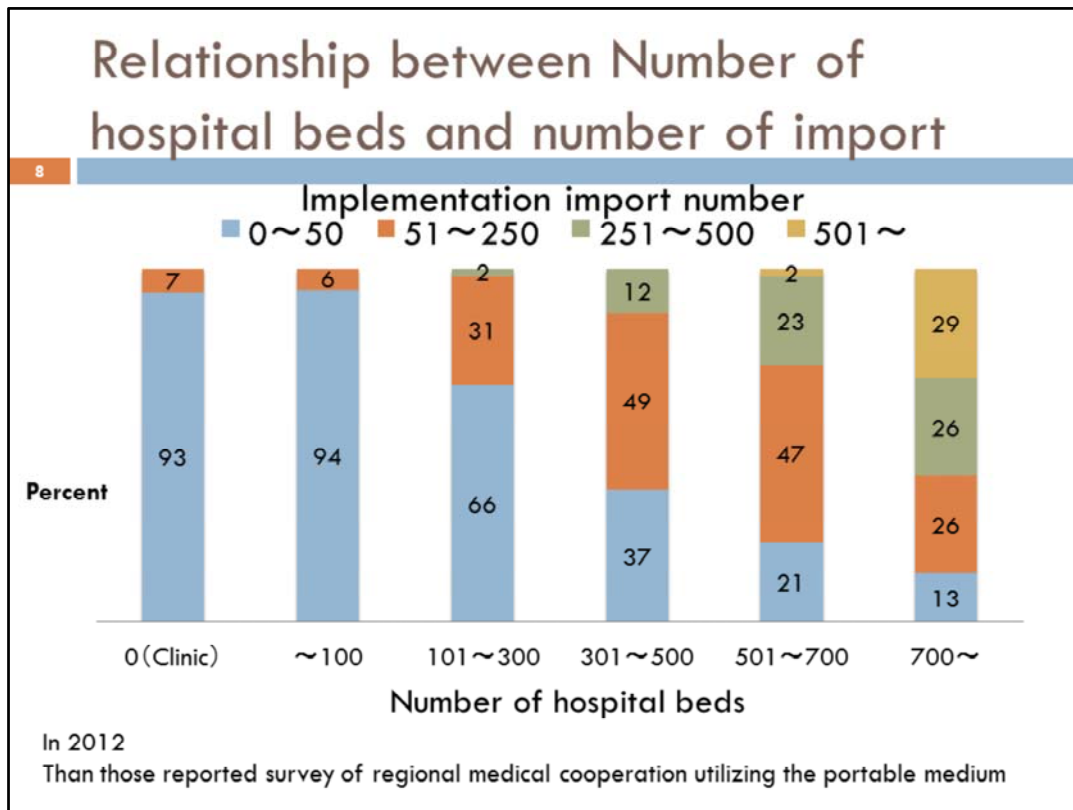
First, is the rate of implementation of import and export. Has become the next import penetration equivalent to 78%, 96% export.

I create the CD-R can be considered, such as testing equipment, does not require specialized equipment, this difference factor, because the environment is relatively place. On the other hand, import and workstations dedicated equipment required, it is necessary to edit the DICOM TAG. They have the facilities that have 78% can not even if they want to do, or not do to clear.



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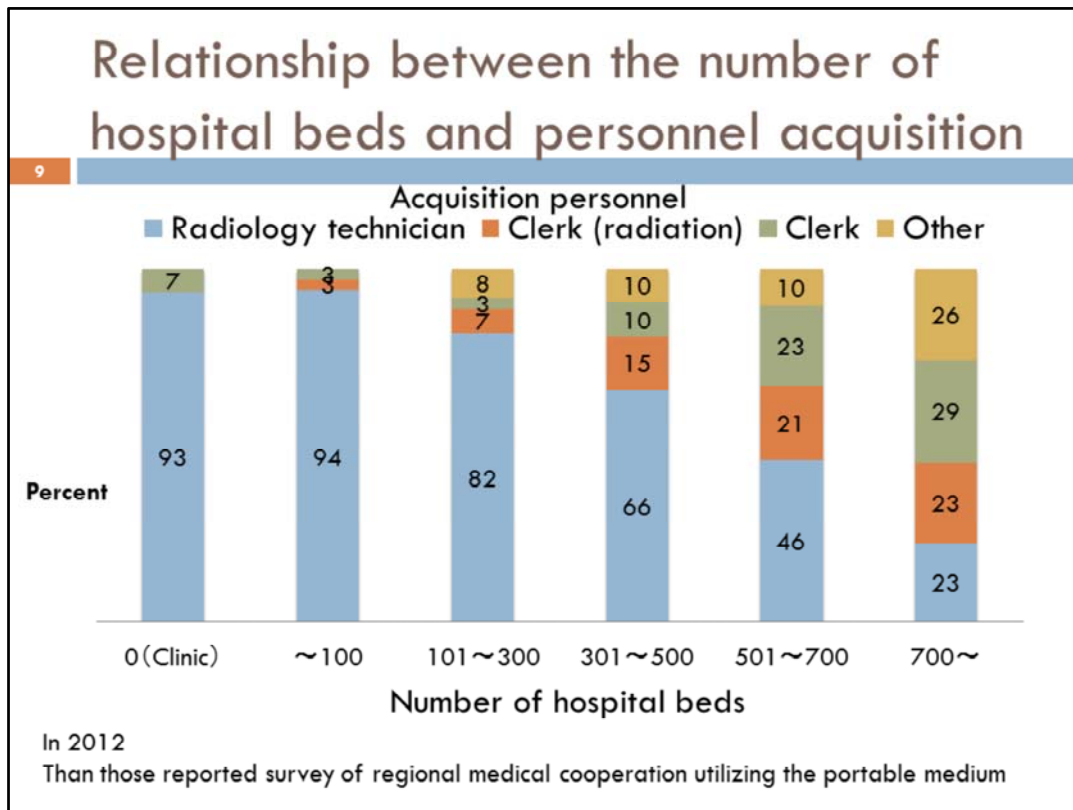
About 78% of this, I take a look at the rate of another embodiment of the number of beds. More than 500 beds is implementing the import at a high rate. In fulfilling the functions of the hospital to accept patient referrals from many facilities, this is said to import essential.



Slide 8

The following shows the relationship between the number of beds and number of incorporation per month.

Many tend to be captured as the number of facilities with a large number of beds in the facility of 700 beds or more, 29% had been conducted in particular the incorporation of more than 500.

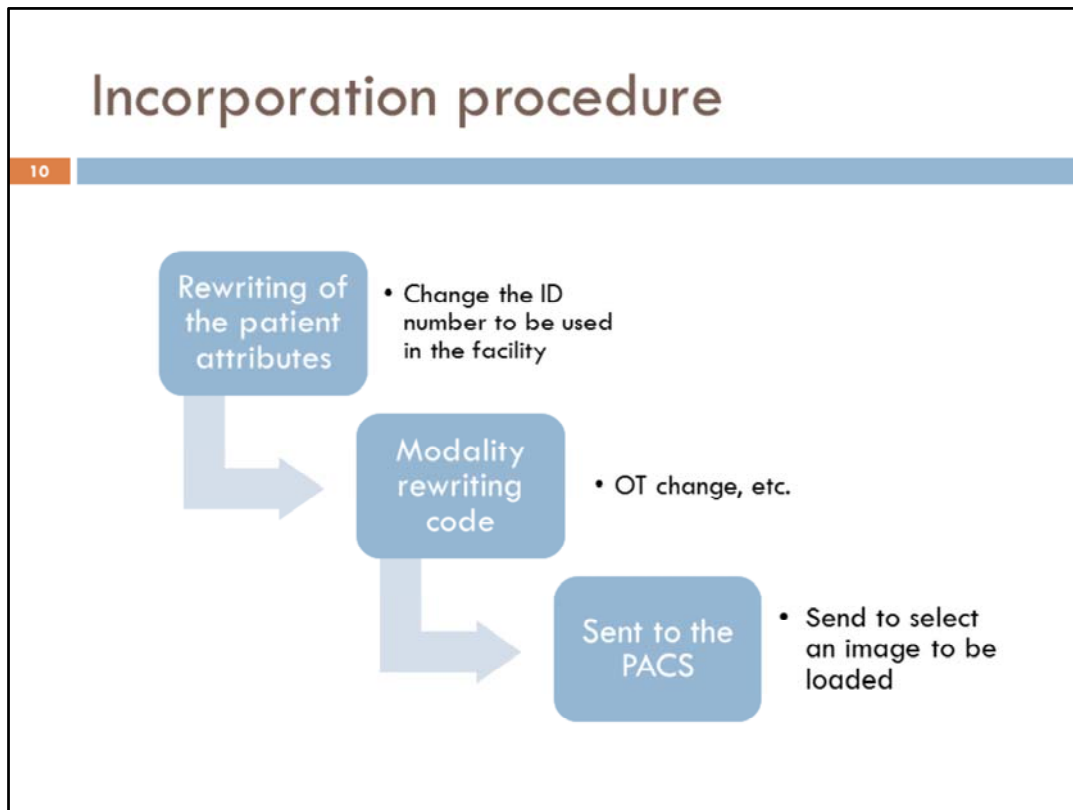


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It is a relationship between the number of beds and personnel acquisition.

Blue is part of radiological technologists, Orange is a percentage of clerk of the radiology department is implementing the uptake also in the graph. It became 82% and combined. In Japan, the hospital of 500 beds or more than about 7200,500 floor is about 420, the reality that a significant number have been performed in the radiology department uptake will see less than 500 beds in the hospital for reference.

According to the analysis of the vice-president Konishi, hospitals over 500 beds because it clarifies the role of the organization and department to manage clinical information is collectively, it is seen in relation to gradually from the hospital of more than 100 beds, We analyze the ratio of the number of beds has increased for each increase.



Slide 10

I shows the incorporation procedure is being performed at the facility actually my.

Transferred to a dedicated device captures the DICOM data from CD-R. Then

1, I rewrite the number you are using in your own hospital patient ID number.

2, I will change the code OT modalities.

I sent to 3, PACS.

These series of operations, so that once transformed using a DICOM MWM, the operation has become very simple.

The problem

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- PACS or to capture all of the data to CD-R?
 - ▣ I am not in violation of capture to PACS DICOM
 - Private tag is an issue
 - The investigation and resolution of these difficulties to the user
 - here is also known to be slow to respond
 - ▣ There is a JPEG and video data
 - ▣ Original data of testing equipment
 - ▣ There is no DICOM DIR

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What can be a problem in this acquisition work.

One is whether the data capture of all CD-R.

In fact, there are data and violation of DICOM, are cases that do not incorporate private tag can not be processed by the PACS even if there is no violation.

Determine the cause and resolve these at the user level is difficult, so that even when the cause is known for example, considerable time is spent. I also can not be resolved immediately There is also a state of the corresponding vendor.

Else, may be such as original video data or device data format is stored. There may be no DICOM DIR.

The problem

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- There is a problem with the display image capture
 - Number or series number disjointed images
 - Order has collapsed
 - I can not be divided into series
 - In order to align the image number is more than one series, it is difficult to see
 - I can not view the image density is properly
 - PACS server-side issues
 - There is a problem with the processing of double-byte characters in the server made abroad
 - Failed to process and display that contains the ISO 2022 IR 87 Japanese

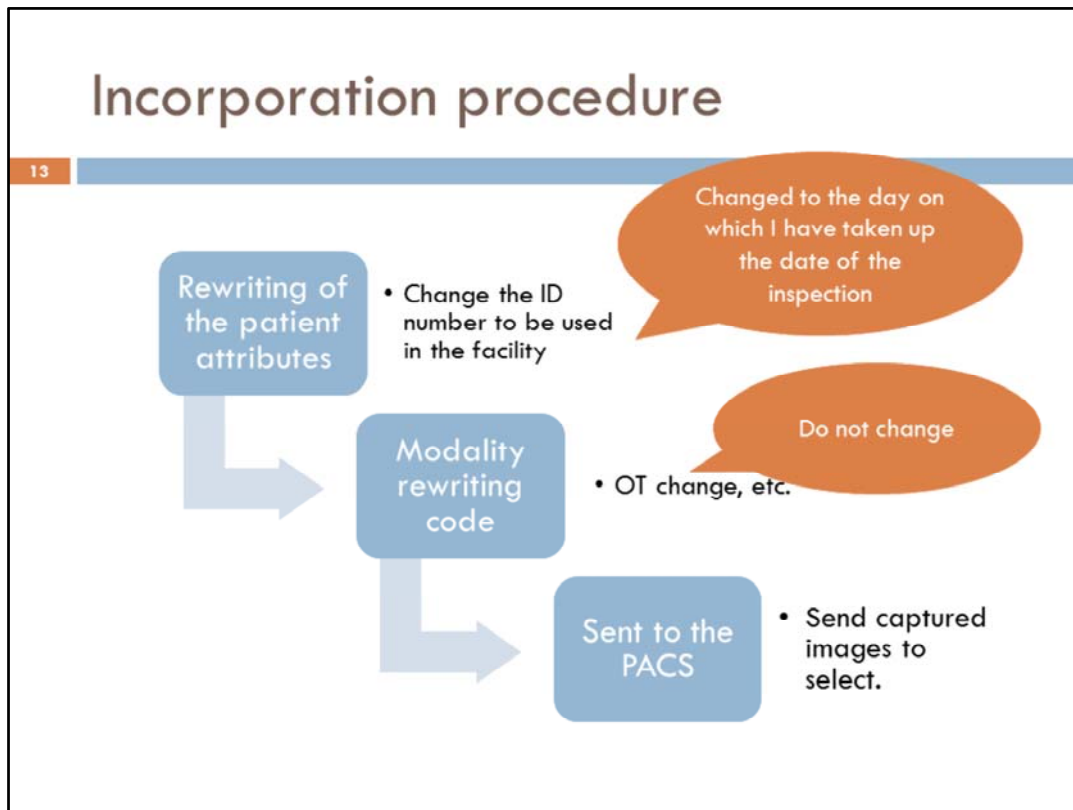
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There may be trouble even if complete capture, when the actually displayed.

For example, all the images, such as a mix of numbers and series number for the image does not work well, the image is in random order, the series does not break up, there was also a difficult case reference.

In addition, the concentration read from the image display without TAG, there were some cases that can not be displayed on the initial concentration appropriate.

There were some cases that can not be displayed in Japanese 2022 IR87 ISO does not work well on the server side.

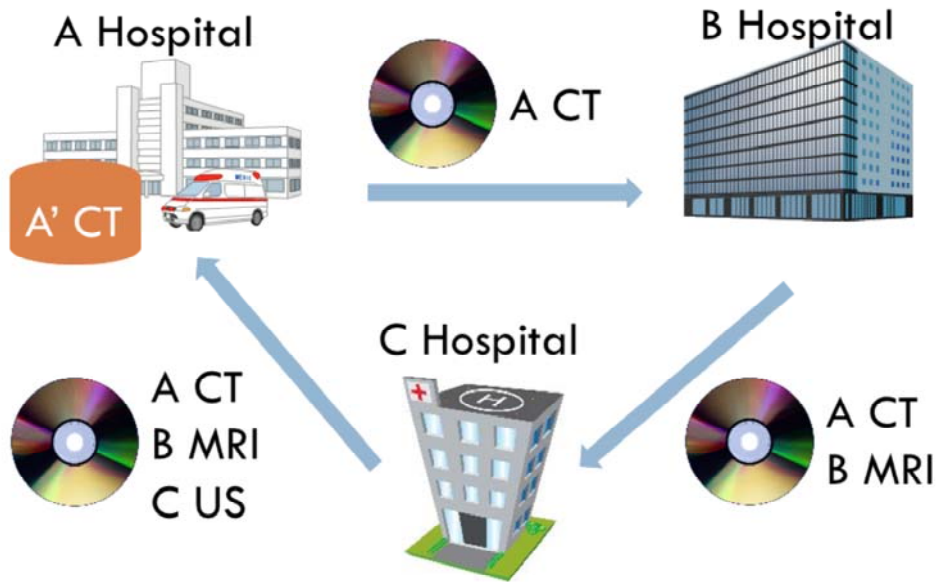


Slide 13

Uptake by the sequence of operations shown in the previous slide, facility to change the date of the inspection date of capture, I have also found that facilities have not changed the code modality. In the system configuration, even if the facility is to be maintained consistent, these processes will be a greater risk to the next stage.

Risk of a portable medium.

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Slide 14

There is a thing that various operational will be in the wake of the failure risks and

For example, we may pass to another facility and imported data, come back to the hospital as the original slide, I would double the storage requirement. If this data, and code modality examination date is not properly handled In addition, there is a possibility that detrimental time series collapses.

I think I should I this happen

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- Check all hospitals in the DICOM checker application
 - ▣ It is wrong where I like to fix all

- I want to advance a cross-check between the hospital
 - ▣ Facilities or cause not made the media capture, facility or you are trying to capture, it is often difficult to determine.
 - I want to like this information can be exchanged.

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It is proposed to implement the import and export more smoothly.

Dissemination and application of DICOM checker

I think DICOM checker application to spread, to eradicate violations of DICOM data, and if they can find anyone to easily.

- Implementation of cross-checking between hospital

Another thing, I want to promote the cross-check between the hospital.

Is there towards the cause of the failure has made the media, such side or captured, and now, the decision is a difficult situation in the field. I think I should make a system to carry out the exchange of information between hospital actively involving the vendor, correct.

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Thank you for your attention

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Over, we have to talk in Present and Future in Japan import and export. Thank you for your attention.