



REPORT

FOUR WEEKS TRAINING COURSE FOR ENGINEER AT TEMDEC - KYUSHU UNIVERSITY HOSPITAL

Fukuoka - Japan, September 7th 2017

Reporter: Nguyen Van Tue
Hue University of Medicine and Pharmacy - Vietnam

HANOI



2 UNESCO
World Culture Heritages

HUE



Hue University of Medicine & Pharmacy



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HUE UNIVERSITY OF MEDICINE & PHARMACY



- One of three largest Medical Universities of SR Vietnam
- Catchment area: nationwide, mainly Central and Highland:
 - 18 provinces
 - 25 millions inhabitants



Education and Research Institution

Undergraduate, graduate education and CME

Scientific research and international relations

MISSIONS

Advanced hospital care

Comprehensive community health care

LEADERSHIP

Understanding – Policies - Investment

INFRASTRUCTURE

PERSONNEL

Infrastructure Hardware

Capacity building Software

Dynamic reciprocal relationship



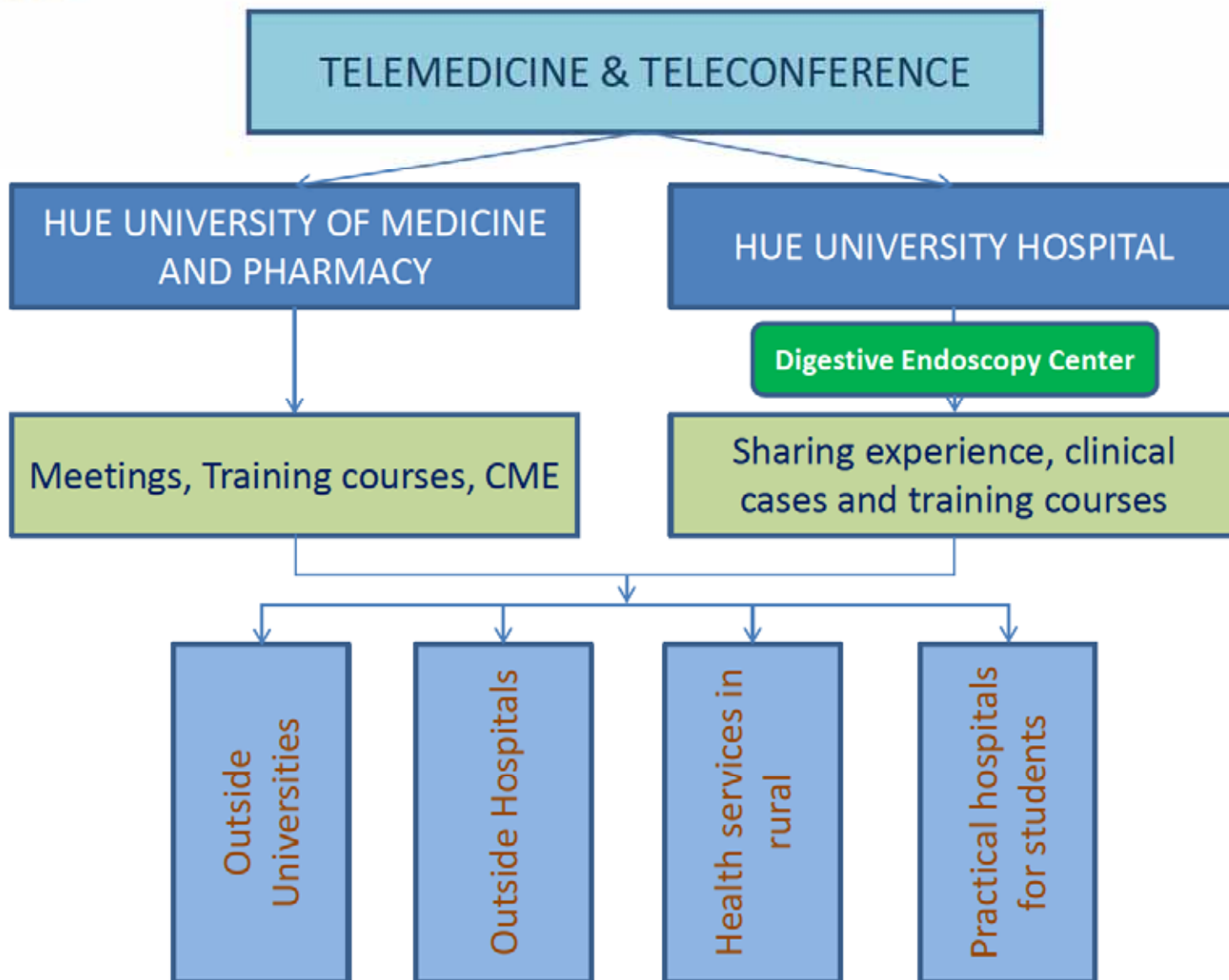
HUE UNIVERSITY HOSPITAL

- * Tertiary care setting, member of the University, within the model of Health Sciences Center
- * Currently under extension and capacity improvement, 700 beds by now
- * More than 560 staffs





TELEMEDICINE ACTIVITIES





TECHNICAL INFRASTRUCTURE

❑ NETWORK SYSTEM:

- 01 line 50MB (Local speed) optical fiber with static IP.

❑ EQUIPMENT:

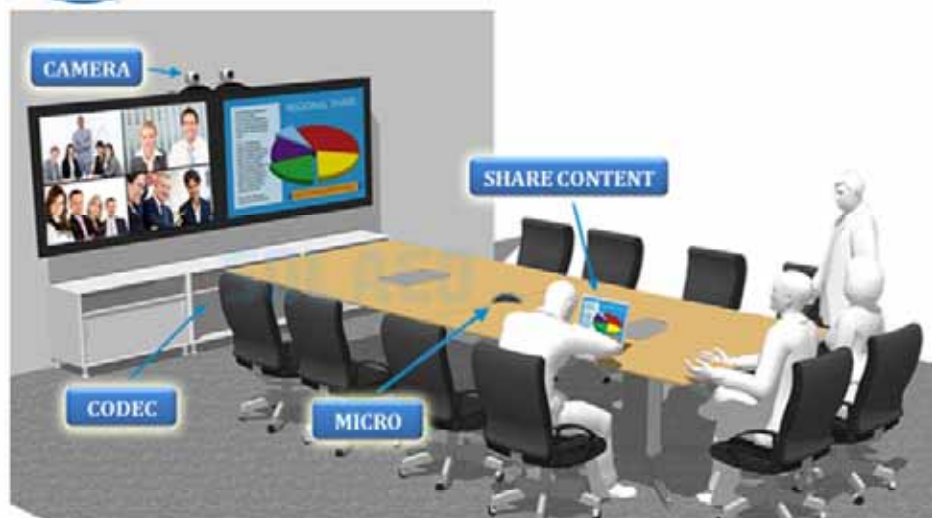
- Hardware: 01 POLYCOM QDX 6000 system
- Software (Vidyo, Skype, Zoom...): HD webcam, Plantronics P420 Calisto Portable USB Speaker Phone, Audio system



AT NOW



TECHNICAL INFRASTRUCTURE



IN FUTURE



TELEMEDICINE – TELECONFERENCE ACTIVITIES



The 1st Telemedicine with Kyushu University Hospital, 2011



ABOUT TEMDEC

Telemedicine Development Center of Asia



Director of TEMDEC
Shuji Shimizu, MD, PhD

国際医療部

アジア遠隔医療
開発センター

Telemedicine Development
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Main activities:

- ✓ Remote medical education
- ✓ Remote patient care
- ✓ Development and application of new technology
- ✓ Development of attractive
- ✓ Secretariat of Medical Working Group of Asia-Pacific Advanced Network (APAN)
- ✓ Center for international exchange programs

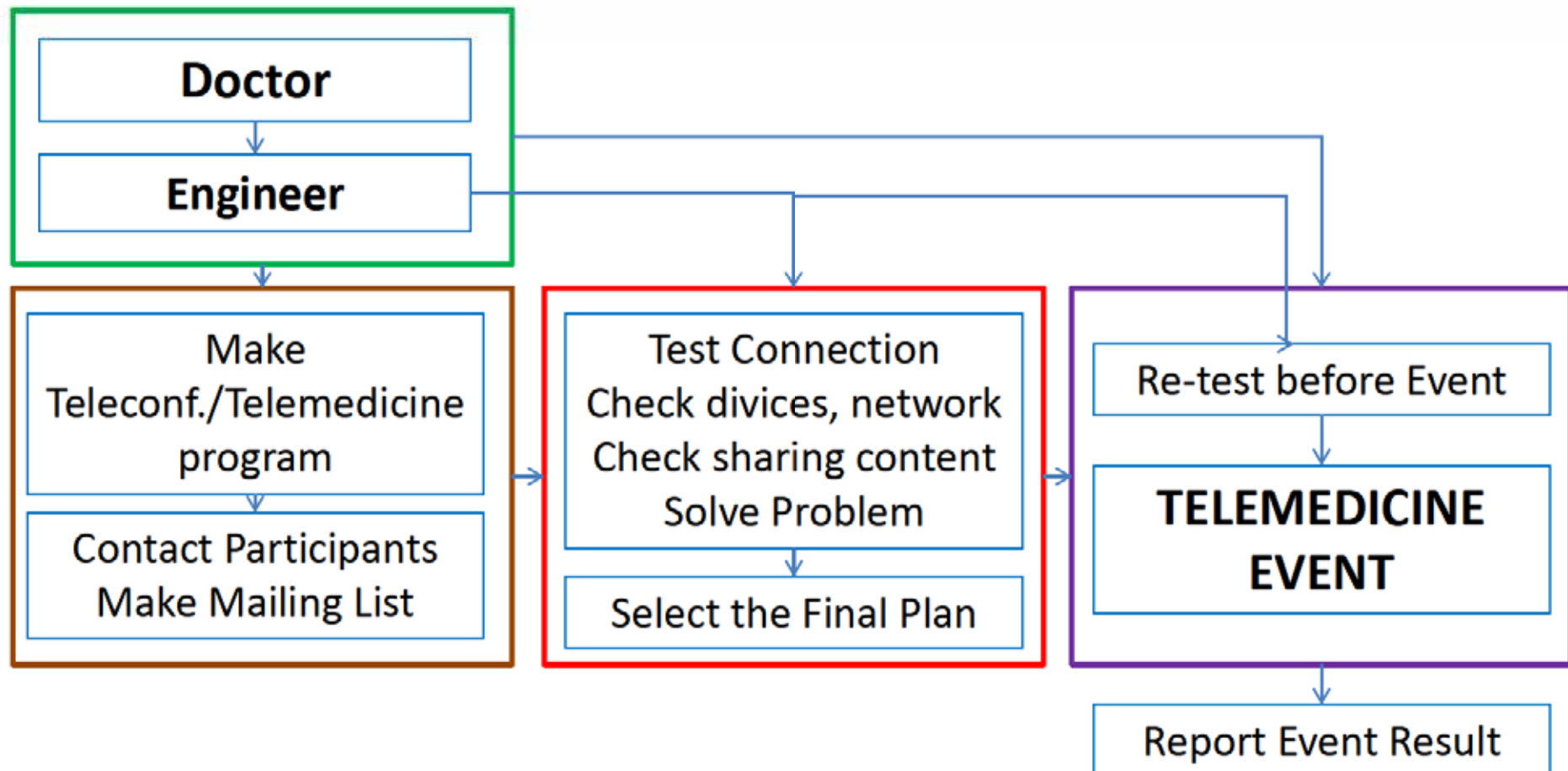
TEMDEC conference room

19877 August 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat	Agents
		31 Item PUNCH (V,H) Item test for engineer meeting	1 Item 111 Item 111 CHC-Indonesia Teleconference Connection	2 Item TEMDEC Item 111	3 Item 111	4 Item 111	5
6 Item 111	7 Item 111 Item MW2	8 Item 111 Item 111 Item Meeting for Oncoemia Item 111	9 Item 111	10 Item 111	11	12	13
13 Item test for APAN endocrine Item 111	14 Item Technology test (Kudo) Item 111	15 Item test for 3D technology (V) Item 111 Item 111 APAN engineer's meeting	16 Item test for 3D (V) Item 111	17 Item 111	18 Item 111	19	20
20 Item Connection Item 1D Neurology	21 Item Test for RUMCH (V,H) Item APAN-CHC 111 Item Test with HMC by MLD00	22 Item Test for RUMCH (V,H) Item Meeting with APAN office Item test for BCE (V)	23 Item Nancy test with Mexico Item Connection for TNP/ELSA Item TNP ELSA Meeting Item TEMDEC	24 Item Test for RUMCH (V,H)	25 Item test for HFB Item test with K006 Item test for APAN Fetus	26	27
27 Item Connection Item APAN44 Introduction Item APAN44 Technology session Item 10Fman test	28 Item Nancy test with HFB Item Gilbert test with Co Item Connection Item APAN44 Fetus session	29 Item Gilbert test with Co Item Connection for HFB session Item APAN44 HFB session Item APAN44 ECE session Item APAN44 Endoscopy PUNCH	30 Item APAN44 Eye session Item APAN44 Donor 2 session Item APAN Endoscopy AIG session Item Tub test with VN	31 Item APAN44 MG Sinus session Item Connection for APAN44 Eng Item APAN44 Engineer Workshop	1 Item 111	2	3

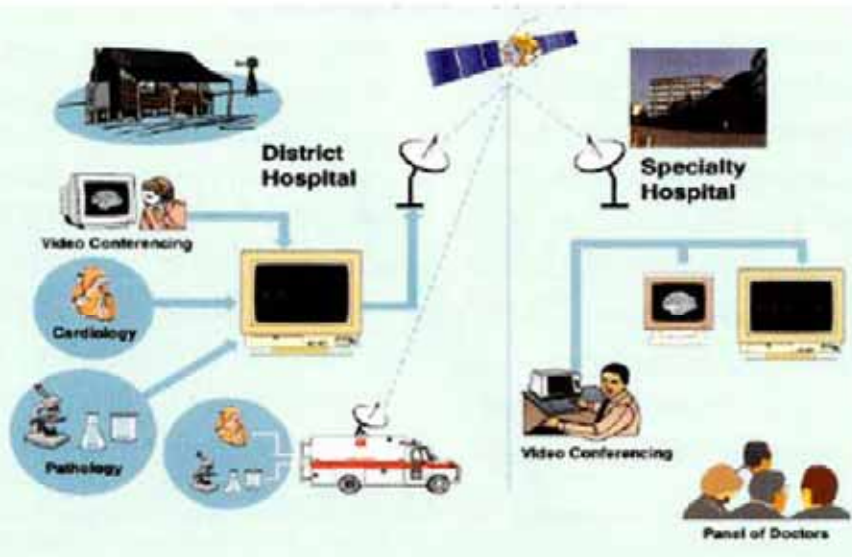
WHAT I LEARNED FROM

✓ How the telemedicine event is realized



WHAT I LEARNED FROM

✓ Required quality level for the telemedicine



- 👍 Good bandwidth
- 👍 Should use an wire connection
- 👍 Good video HD camera
- 👍 Good microphone divice/system

Due to the sistuation and needs of each local site, we will chose the best solution to implement.

WHAT I LEARNED FROM

✓ Teleconferencing system



主として使用しているテレビ会議システム

DVTS

- ・低圧縮、低遅延
- ・高帯域が必要

WIDE プロジェクトにおいて
1998年より開発が行われているフリーソフト

Polycom, Lifesize, Sony などと製造

H.323

- ・高普及率
- ・高信頼

用途や、接続先のネットワーク・機材環境に応じ
複数のテレビ会議システムを使い分け
高品質の医療カンファレンスを実現

11,264拠点のマルチポイントテレビ会議システム
インターネット、3G/4G/Wi-Fi/WiMAXで利用可

Vidyo

- ・低帯域で高品質
- ・接続が容易



WHAT I LEARNED FROM

✓ Technical preparations and teamwork

KEY POINTS

Listening / watching only	Participating in a conference	Making a presentation
★ ★ ★	★ ★ ★	★ ★ ★

Advance preparations for a local meeting/teleconference

- For a teleconference, various technical preparations are needed in addition to the preparations for a local meeting

✓	✓	✓
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Flow for a local meeting

- Decide followings: time/date → Venue, main theme or agenda → Program → Presenters → Start preparations

✓	✓	✓
---	---	---

Items to confirm with presenters

- Types of PC applied
- Format of presentation file
- With or without multimedia (videos or sound, etc.)

		✓
		✓
		✓

Possible problems and advance solutions

- Hardware (equipment) problem → Have a backup ready
- Network problem → Conduct an advance test and contact the network administrator in own venue ahead of time
- Presentation problem → Share data in advance, reduce data size and check audio/visual components

✓	✓	✓
✓	✓	✓
		✓



WHAT I LEARNED FROM

✓ How to solve the problems

- **Sound:** Echo/Howling; Noise; Sound Breaking up; Counterparts can not hear; Other participants can not hear...
- **Image/Video:** Poor quality; Not display; Fuzziness/Broken; Can not share presentation.
- **Network:** Packet loss



WHAT I LEARNED FROM

✓ To deepen friendship in medical community



SPECIAL AND USEFUL GIFT



SOME ACTIVITIES AT TEMDEC

Telemicine Development Center of Asia

✓ Visit the Operation Rooms at Kyushu University Hospital



SOME ACTIVITIES AT TEMDEC

Telemicine Development Center of Asia

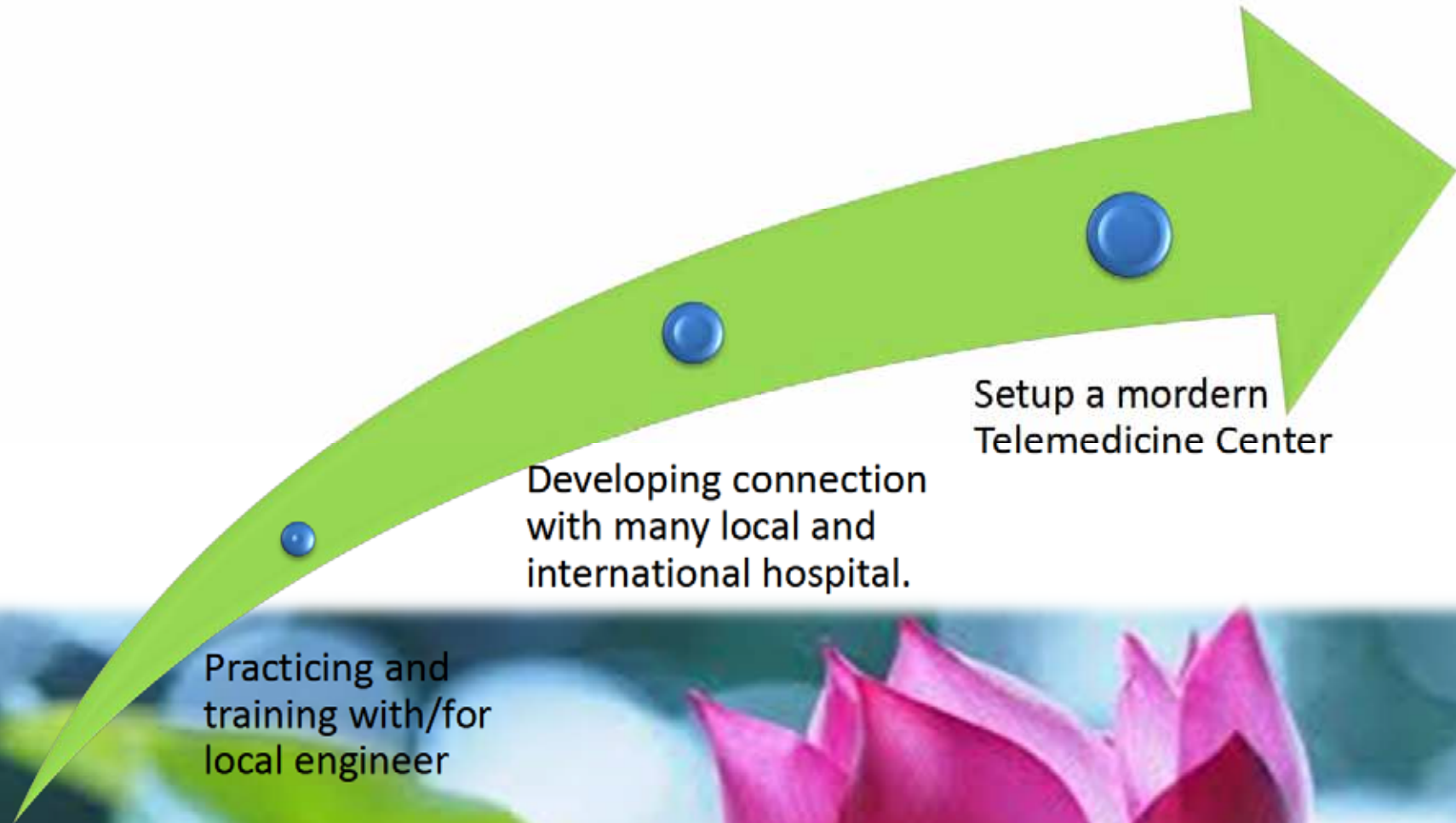
✓ Joining to the Telemicine activities with team Engineer of APAN44 (Dalian, China)



- ✓ Enhance my knowledge and skill in Techniques of Teleconference & Telemedicine
- ✓ Friendly and polite in communication
- ✓ Carefully and professional in working
- ✓ Sharing and good coordination in teamwork



PLAN IN FUTURE



Practicing and training with/for local engineer

Developing connection with many local and international hospital.

Setup a modern Telemedicine Center

WHAT I DISCOVERED IN FUKUOKA

✓ From the Sky



✓ To the Land



WHAT I DISCOVERED IN FUKUOKA

✓ From the mountain



✓ To the sea



✓ From Temples



✓ To the Cultural Museum



WHAT I DISCOVERED IN FUKUOKA

✓ From the People



✓ To the Foods



WHAT I DISCOVERED IN FUKUOKA

... and more





THANK YOU FOR YOUR SUPPORT!

