



The Development of RAMA Model Home-Based Chemotherapy for Thai Patient with Colon Cancer

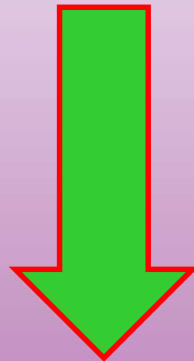
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Introduction:

- + Global, the incidence of cancer is increasing everyday and colon cancer is the 4th ranking in Thailand
- + Chemotherapy is a benchmark of treatment modality for patient with colon cancer
- + Several chemotherapy regimens need to be admitted for a continuous infusion
- + Imbalance between demand and supply in healthcare service is a crucial
- + Ambulatory home-based chemotherapy provide in this chemotherapy setting

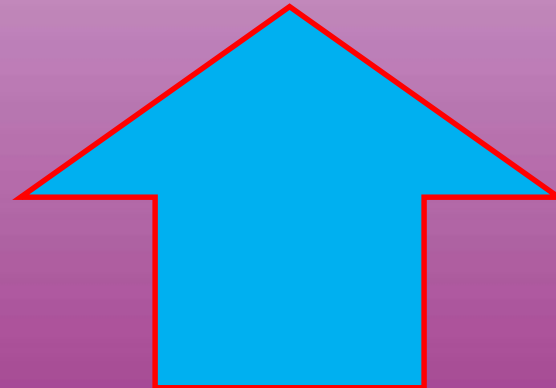
Problem: imbalance between demand & supply



Hospital beds are
insufficiency for
chemotherapy admission



Enhance of cancer
patient everyday



Big Issue : Delayed chemotherapy in IPD setting for colon cancer Regimens : mFOLFOX6 & mFOLFIRI Q 2 weeks

The purpose

To develop the service system of ambulatory home-based chemotherapy for Thai patients with colon cancer

The design

Research and development was designed to improve the process of chemotherapy delivery service in patient with colon cancer at a Ramathibodi hospital

Method:



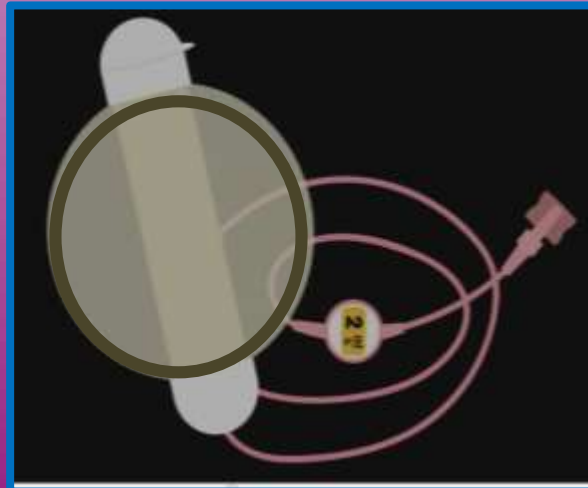
- + Cooperate with disciplinary team
- + Review literatures and visit the cancer center@ Singapore
- + Define the inclusion criteria :
 1. patient with colon cancer and H&N cancer who received standard regimen of 5-FU continuous infusion
 2. Good performance status (ECOG \leq 2)
 3. Had a central vascular access devices ; port & PICC etc.
 4. Good compliance
 5. Sign home chemotherapy consent form

Method:

+ Search and select for the proper devices :

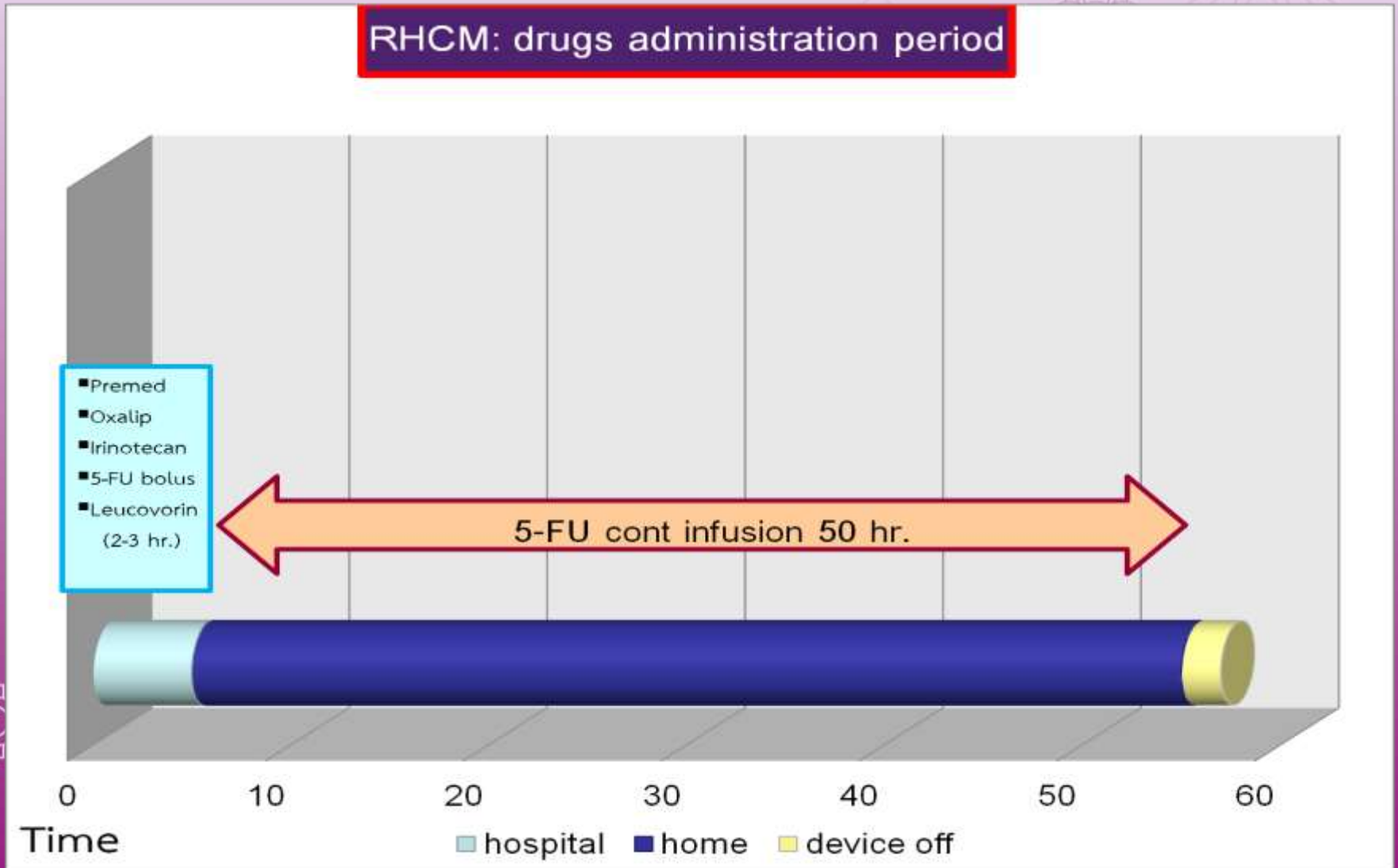
1. Device property: it should be small, safe, accurate, convenient, and easy to carry back home
2. The device was tested for accuracy of the infusion rate .

The elastomeric infusion pump is a choice



Method:

- ✚ Modify chemotherapy regimen and administration



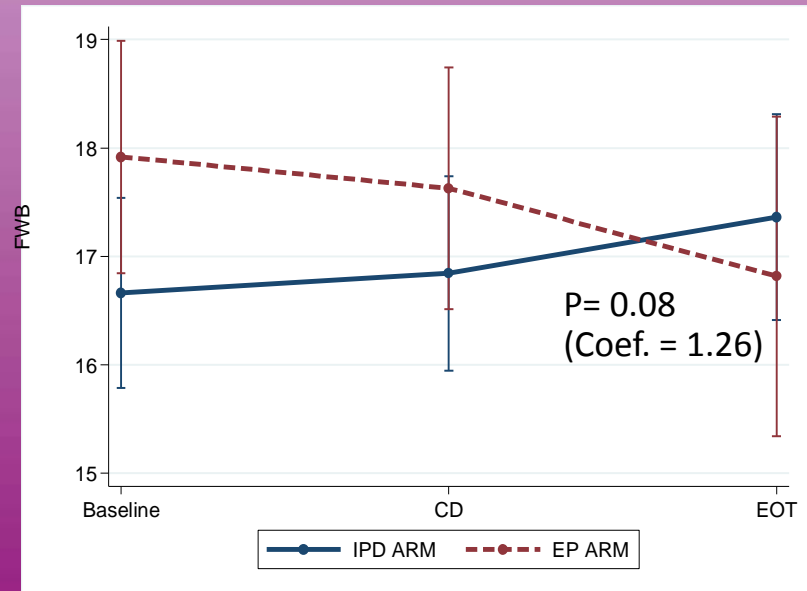
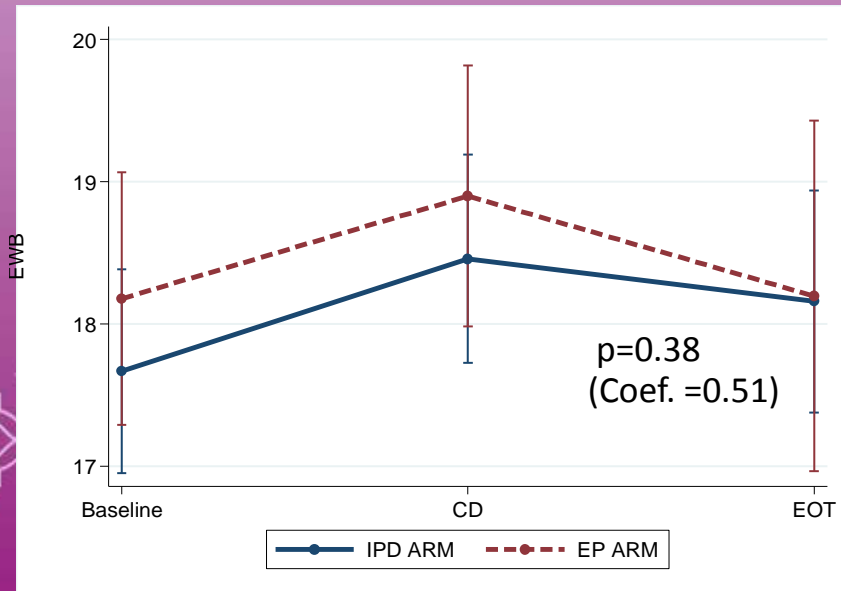
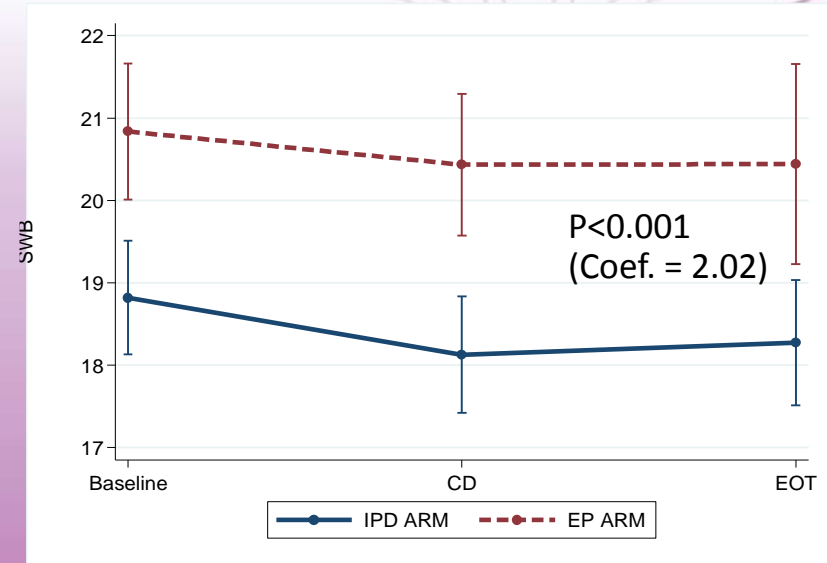
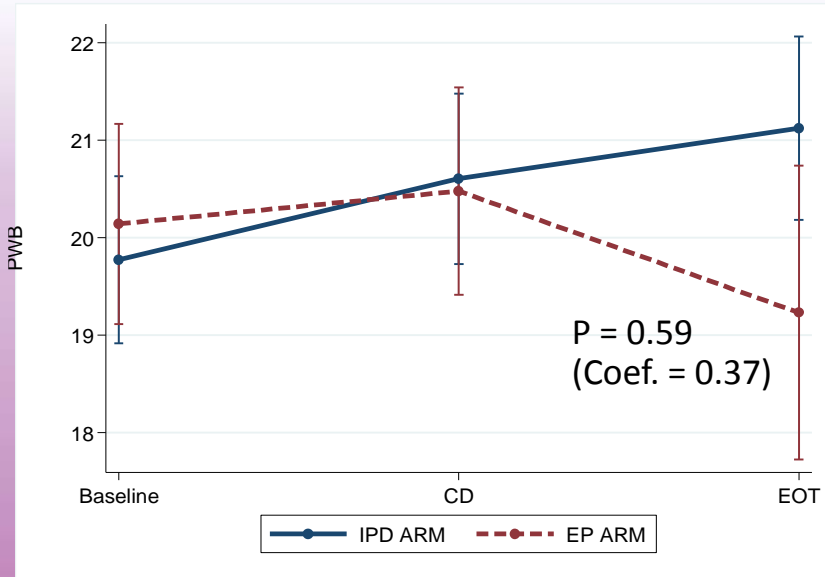
Method:

- ✚ The pilot was done with 5 participants to test the system feasibility, safety, and device accuracy
- ✚ The data of QOL(FACT-C), satisfaction, adverse events, and cost was collected
- ✚ The data was analysed by using descriptive statistics and mixed effect linear regression model

Results:

- + The 111 participants (1,665 cycles) of colon cancer patients were enrolled
- + There was no delayed chemotherapy schedule and serious adverse event
- + Infusion rate is acceptable

FACT-C score



FACT-C score

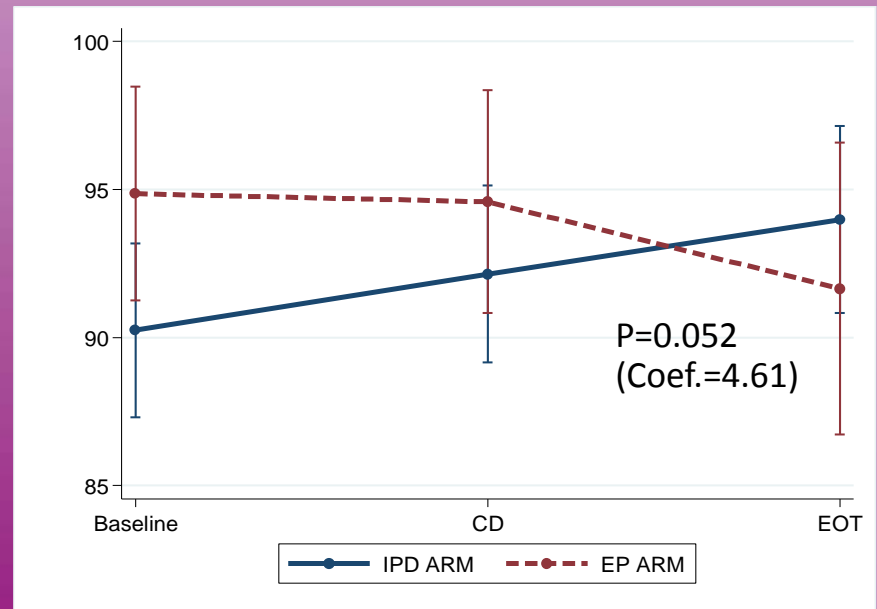
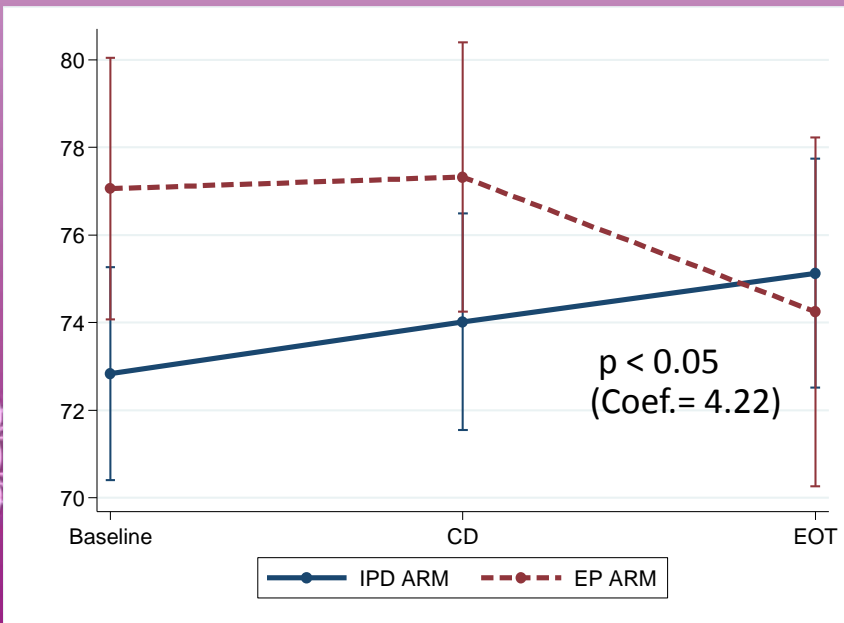
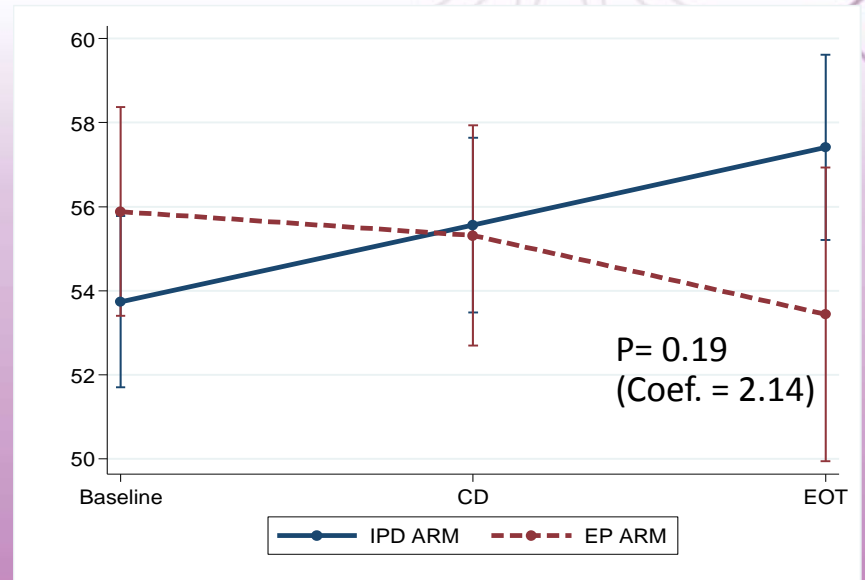
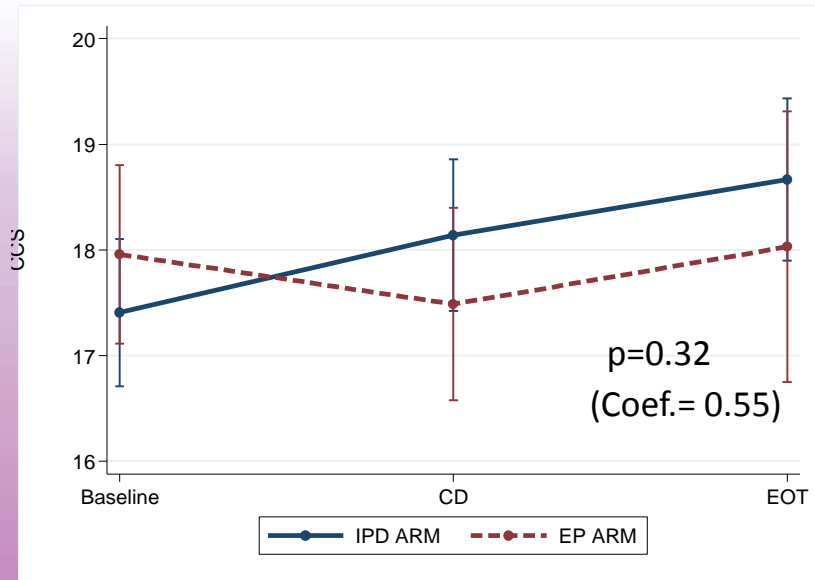
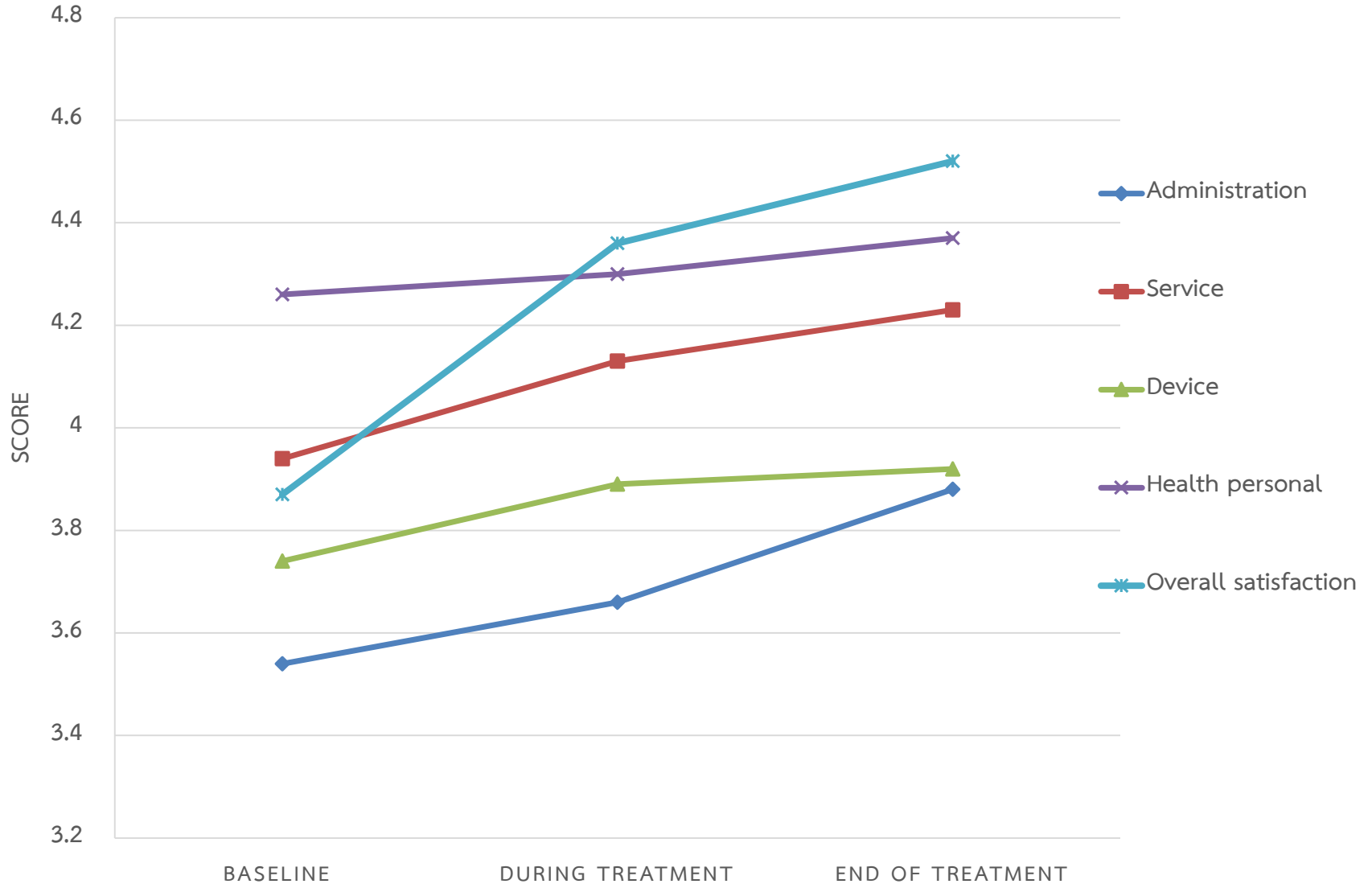


Table1 : To compare mean score of satisfaction at different time interval

Satisfaction domain (score1-5)	Baseline	During treatment	End of treatment	P value
Administration attitude	3.54	3.66	3.88	<0.001
Service	3.94	4.13	4.23	0.004
Device	3.74	3.89	3.92	0.108
Health personal	4.26	4.30	4.37	0.611
Overall satisfaction	3.87	4.36	4.52	<0.001

SCORE OF SATISFACTION



Cost per cycle

Administration setting	Cost(THB)*	Cost USD
IPD	13,987.60	423.87
Ambulatory home chemotherapy	2,815.36	85.31
Saved cost	11,720.24	338.56

1,665 cycles **X** 11,720 THB = 19,513,800 THB
(562,770 USD)

* Cost was calculated from room service , food , nursing staff service, elastomeric infusion and other supplies.

Conclusion and recommendations :

- ✚ The multidisciplinary teamwork is a key of the success
- ✚ Well trained and coached patient and family is crucial
- ✚ Patient and family satisfied the RAMA home-based chemotherapy project because they could maintain a normal life during treatment and saved a hospitalization cost
- ✚ The extension of this model is proved to be useful and feasibility for patient and healthcare professional

Rewards



2016 “Dean’s Award” from Ramathibodi Hospital



2016 The winner “Good Team Practice” from Mahidol University



2017 “excellent award “ from the Office of Public Sector Development Commission (OPDC) (National ward)



2019 UNPSA categories



1. Delivering inclusive and equitable services to leave no one behind
2. Ensuring integrated approaches in the public-sector institutions
3. Developing effective and accountable public institutions
4. Promoting digital transformation in public sector institutions
5. Promoting gender responsive public services to achieve the SDGs



“I would like to thank you for colleague,
patients, and their families”