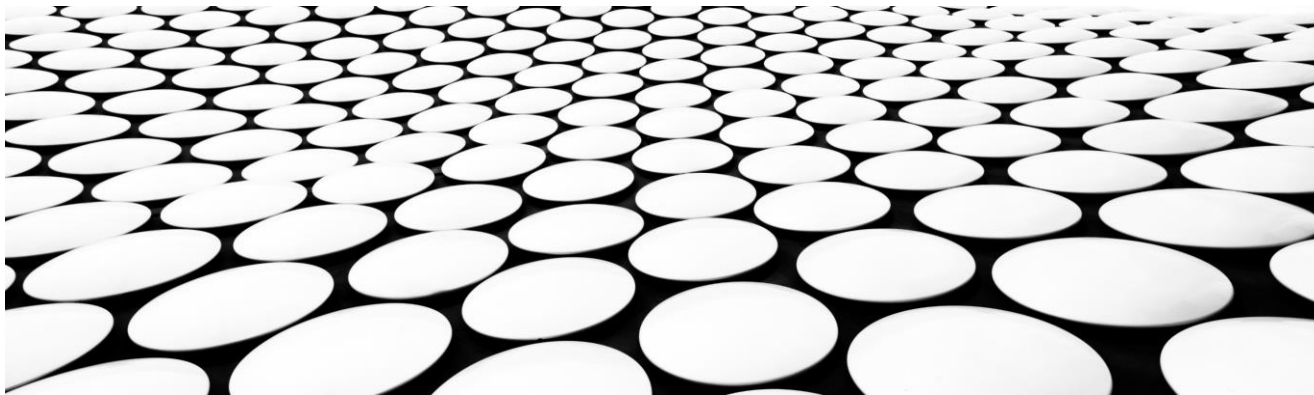


職能治療在後急性病患照護的 角色功能

急性期後のケアにおける作業 療法の役割

The role and function of OT in post-acute Care



張婉嫻 WAN-YING CHANG,
OTR, MS, 2022/12/3

急性後期照護的目標

急性期後ケアの目標

Goals of Post-Acute Care

1. Care recipients must be patients not requiring long-term hospitalization or premature placement in a long-term care facility.
2. The services provided should be based on a comprehensive assessment of the older patient and individualized treatment plans drafted in accordance with the results of such assessments.
3. As much as possible, such service should seek to enhance patients' independent, autonomous living ability and have the ultimate goal of allowing patients to live independently at home.
4. Post-acute care services possess time restrictions, will not exceed 6 weeks as a rule, and will usually last no more than 2 weeks.
5. Although the content of services must encompass all treatment areas, there must be individual assessment mechanisms, individual case history records, and case history sharing procedures.



健保醫療計畫

其他疾病照顧計畫

其他居家相關醫療服務

家庭醫師整合照護計畫

安寧療護(住院、居家、
共照)網路查詢服務

急性後期整合照護計畫



醫院以病人為中心門診
整合照護計畫

衛生福利 e 寶箱

全民健康保險代謝症候
群防治計畫全民健康保險住院整合
照護服務試辦計畫

首頁 > 健保服務 > 健保醫療計畫 > 急性後期整合照護計畫

急性後期整合照護計畫

› 急性後期整合照護計畫(109.04.10新增)   › 急性後期整合照護計畫-劃線版(109.04.10更新)   › [急性後期整合照護團隊特約醫事機構查詢](#)› 計畫問答集(111.4.29更新)  › 急性後期整合照護計畫單張 › [專業訓練課程：](#)

更新日期：111-05-20

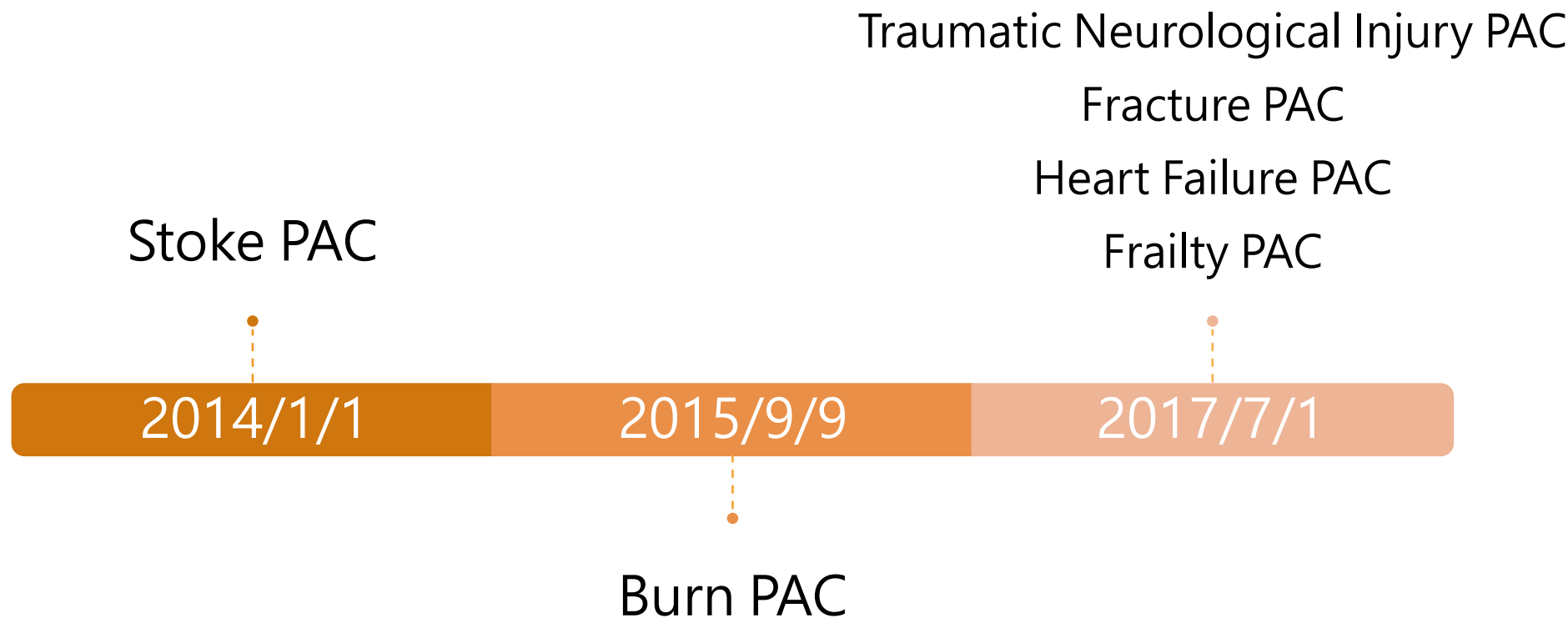


中央健康保險署-健保醫療計畫

https://www.nhi.gov.tw/Content_List.aspx?n=5A0BB383D955741C&topn=5FE8C9FEAE863B46

台灣全民健康保險急性後期整合照護計畫 台湾の国民健康保険の急性期後の総合ケアプラン

National Health Insurance Post Acute Integrated Care Program

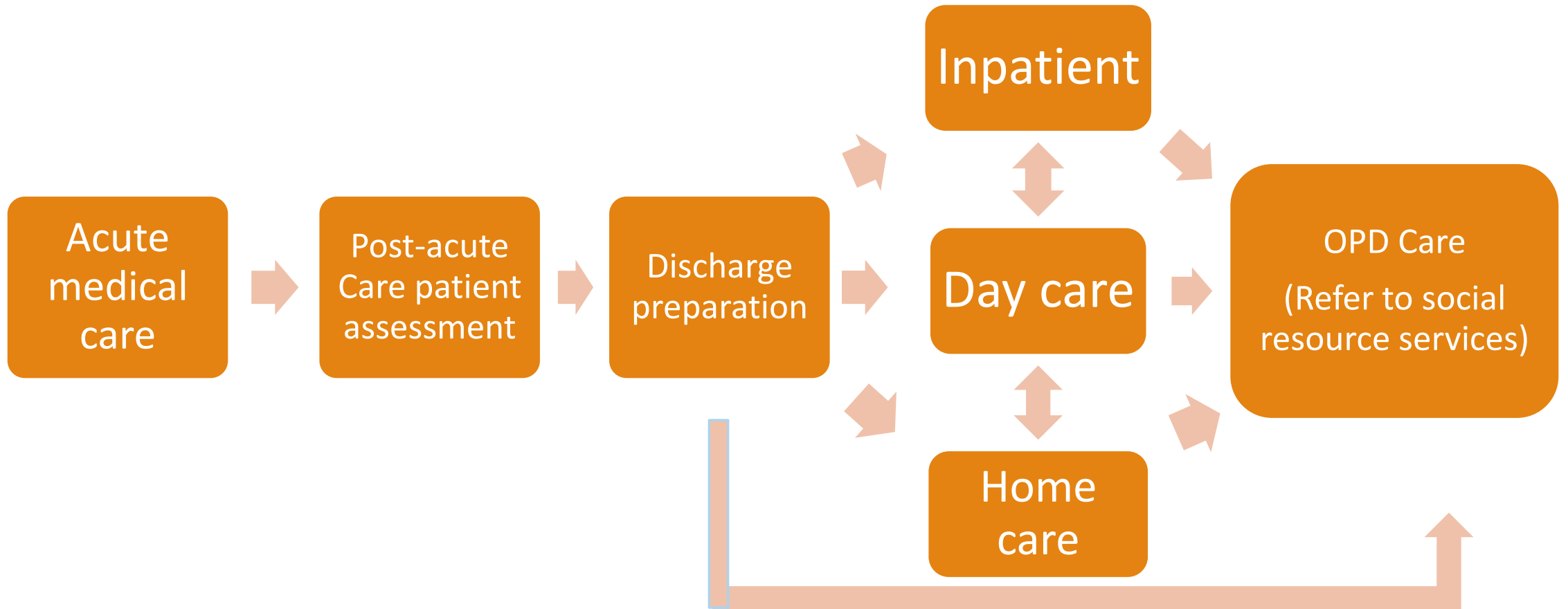


目標 目標

Purpose

1. Establish Taiwan's post-acute care model
 - improve the quality of post-acute care
2. Establish integrated transfer system(continuity of patient care)
 - acute phase → post-acute phase → chronic phase
3. Completeness and Effectiveness :
 - Provide positive and integrated care to patients in the golden period of treatment
 - Restore functions or reduce disability
 - Reduce subsequent medical expenses for re-hospitalization

照護模式 ケアモデル care model



急性後期整合照護住院模式 急性期統合治療後の入院モデル

Inpatient model of post-acute care

1. Regional/community hospital
2. Rehabilitation treatment
3. Service contents:
 1. Personalized treatment plan
 2. Interprofessional team integrative care
 3. Rehabilitation treatment
 4. Home care skill guidance
 5. Prevention and treatment of comorbidities and complications
 6. Regular team evaluations



Team members: Physician, Nurse, Specialist Nurse , Physical Therapist, Occupational Therapist, Speech therapist, Psychologist, Social worker, Nutritionist, Case manager

急性後期整合照護日間照護模式 急性期後統合ケアデイケアモデル

Day care model of post-acute integrated care

1. All day (9:00-17:00)
2. Service contents:
 1. Physician diagnosis
 2. Outpatient rehabilitation treatment
 3. Nursing care: Wound dressing, Urinary catheter, Constipation
 4. Refer social resources for counseling
 5. Nutrition and dietary guidance
 6. Functional recovery
 7. Physical & mental rehabilitation
3. Individual therapy room or sheltered field



急性後期整合照護居家模式 急性期後統合ケアホームモデル

Post-acute integrated care home care model

1. Can not use Inpatient or Outpatient Model
2. Service contents:
 1. 30-50 mins. Home care by PT, OT, or ST (Home care certification)
 2. Education care giver, help patient ADL function and social participation
 3. Evaluation and plan
 4. Frequency: 6 times/week
 5. Hospital release prescription to community clinic



成效評量 有効性評価 Effectiveness evaluation

1. Members: all staffs
2. Meeting frequency: baseline, mid-term, discharge, regular convening rate 98%
3. Meeting record: showed in medical records, signature form, Medical Record Completion Rate 100%
4. Medical record content: inclusive criteria, discharge criteria, each profession goals, discharge planning

Medical center

- Discharge evaluation to PAC service hospital

PAC service
regional hospital
/ clinic

- Initial evaluation about each professional tools

PAC service
regional hospital
/ clinic

- Mid-term evaluation

PAC service
regional hospital
/ clinic

- Discharge planning to long-term care /home care

出院準備服務內容 退院準備サービス

Discharge preparation services

1. Provide consultation hotline
2. Home care advice
3. Rehabilitation treatment suggestions
4. Community medical resources referral service
5. Referral to social resource: ex. Long-term care center, Assistive technology rescore center
6. Suggestions for psychological counseling services
7. Referral to the home medical team of the "National Health Insurance Home Medical Care Integration Plan"
8. Referral to the community medical group of "Family Physician Integrated Care Plan"
9. Other matters related to discharge preparation

品質指標 品質指數 Quality index

□ Submit the implementation results report every six months

➤ Mortality rate:

$$\frac{\text{The number of cases that died within 1 year after the case was discharged}}{\text{Number of cases closed by institutions in the current year (excluding dead cases)}}$$

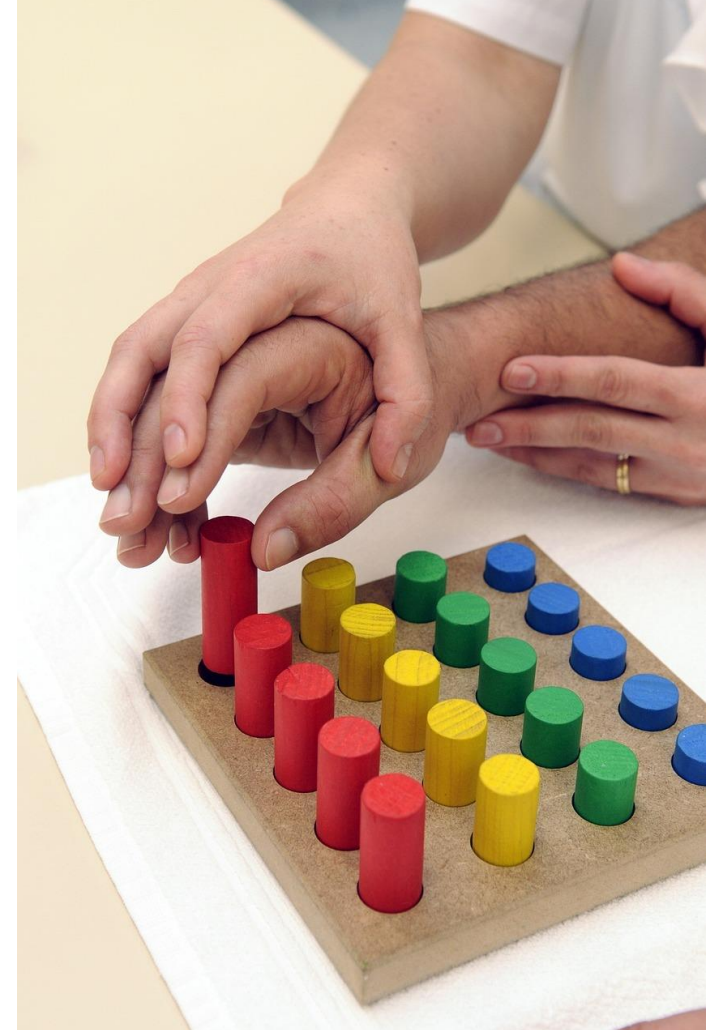
➤ 30-days Emergency revisit rate:

$$\frac{\text{The number of emergency cases within 30 days after the case was discharged}}{\text{Number of cases closed by institutions in the current year (excluding dead cases)}}$$

➤ Average length of hospital stay in post-acute care

➤ Intubation Removal Rate

➤ Unplanned NG tube/Urinary catheter slippage rate



6 Diseases for Post-Acute care program

腦中風/脳卒中/Stroke

燒燙傷/やけど/Burn

脆弱性骨折/脆弱性骨折/ Fracture

創傷性神經損傷/外傷性神經損傷/Traumatic Neurological Injury

心臟衰竭/心不全/Heart Failure

衰弱高齡病患/衰弱した高齢患者/Frailty and Old Aged

收案與排除條件 承認条件と除外条件 Inclusion and Exclusion criterion

INCLUSION

1. Basic cognition, learning ability and willingness
2. Sufficient physical fitness:
 - Sit on wheelchair at least 1 hour without support
 - Accept at least 1 hour of active rehabilitation treatment every day
3. Active participate in rehabilitation treatment plan
4. Good family support

EXCLUSION

1. Severe impairment of consciousness or cognition, severe mental illness
2. Long-term respirator dependence
3. terminal disease
4. Bedridden for a long time, body function cannot recover
5. Cancer still requires follow-up hospitalization

腦中風 腦卒中 Stroke

- Modified Rankin Scale (MRS):3-4
- Onset < 30 days
- Neurological sign stable within 72 hrs
- Vital sign: stable
- No complication or under control
- Training 3-6 weeks, max to 12 weeks



評估工具 評価ツール Assessment

CORE ASSESSMENTS

1. Modified Rankin Scale (MRS):3-4
2. Barthel Index (ADL function)
3. Functional Oral Intake Scale (FOIS)
4. Mini Nutritional Assessment (MNA)
5. Euro QoL-5D
6. Instrumental Activities of Daily Living (IADL)

PROFESSION SELECTIVITY ASSESSMENTS

1. Berg's balance Test
2. 6-minute walking test
3. Usual Gait Speed
4. Mini-Mental Stage Examination
5. Fugl-Meyer Assessment-motor
6. Motor Activity Log
7. Speech function evaluation(Concise Chinese Aphasia Test, CCAT)

焼燙傷 やけど Burn



Inpatient model

Barthel index
 ≤ 80

Wound has
recovered for >2
months
in poor condition

Outpatient model

After
inpatient
discharge

Max 3 months
Evaluation: +1
month for 3 times

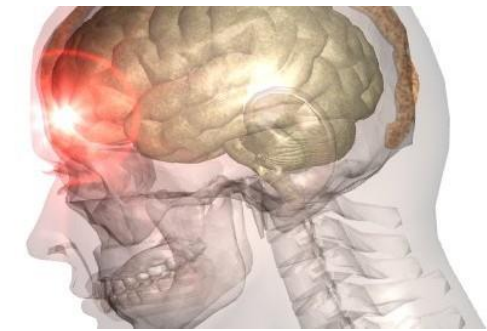
➤ 6 hours burn continued education in 3 years

➤ Evaluation items:

1. Barthel Index
2. Range of Motion
3. Vancouver scar scale
4. POSAS (patient and observer scar assessment scale)
5. Burn Specific Dysphagia Severity Rating Scale
6. Mini Nutrition Assessment (MNA Short Form)

創傷性神經損傷 外傷性神經損傷

Traumatic Neurological Injury



- Patients > 18 years old
- Disabled due to traumatic nerve injury
- Onset: < 60 days
- Significant and persistent moderate functional impairment
- Barthel Index: 40 - 70
- Stable medical conditions
- Positive rehabilitation potential
- Training 3-6 weeks, max to 12 weeks

Definition of medically stable :

1. Stable neurological condition
2. Vital signs are stable or controllable in the past 72 hours
3. Complications have been stable or controllable

評価工具 評価ツール Assessment

CORE ASSESSMENTS

1. Barthel Index (ADL function)
2. Lawton-Brody Instrumental Activities of Daily Living (IADL)
3. Euro QoL-5D

PROFESSION SELECTIVITY ASSESSMENTS

1. The Galveston Orientation and Amnesia Test
2. Rancho Los Amigos Cognitive Functional Grading
3. The Canadian Occupational Performance Measure
4. Speech therapy evaluation

脆弱性骨折

脆弱性骨折

Fracture

- Patients > 18 years old
- Including: Hip, Spine, Knee, non-stable Pelvic fracture
- Operation < 30 days
- Barthel Index: 40 - 70
- No complications, or complications but controllable and stable symptoms
- No intensive medical intervention, testing or oxygen use
- Positive rehabilitation potential

- Exclusion: Spinal Cord Injury
- Training 1-2 weeks, max to 3 weeks
- Evaluation items:
 1. Barthel Index
 2. Numerical Rating Scale ; NRS
 3. Harris Hip Score



心臟衰竭 心不全 Heart Failure



INCLUSION

- Heart failure: left ventricular Ejection fraction $\leq 40\%$
- ACC/AHA Stage C~D
- Heart failure: Ejection fraction $\geq 40\%$ + acute decompensation inpatient
- Acute myocardial infarction + heart failure: left ventricular Ejection fraction $\leq 40\%$
- Training max to 6 months

EXCLUSION

- Survival period is < 6 months due to non-heart failure-related diseases
- End stage of severe heart failure and cannot recover within a short period of time
- Patients or families have no willingness to participate
- Scheduled to undergo coronary artery bypass surgery or heart valve surgery within one month
- Currently undergoing kidney dialysis or waiting for a kidney transplant.
- Severe lung disease requires long-term home use of oxygen.
- Inability to agree on treatment with other specialists

標準 標準 Criterion

1. Cardiologist
 2. Cardiac surgeon
 3. Specialist Nurse(Heart failure case manager)
 4. Psychologist
 5. Social worker
 6. Nutritionist
 7. Physician medicine and rehabilitation
 8. Physical therapist
 9. Occupational therapist
 10. Pharmacist
- Doctor: 6 hours continued education for heart failure care
 - Case manager: 18-20 hours continued education for heart failure care
 - N3 , Cardiology Ward >3 years or Cardiology ICU > 2 years
 - Each nurse care < 50 cases
 - Case loading $\leq 25 \rightarrow$ combine other work loading
 - $25 \leq$ Case loading < 50 \rightarrow only responsible care heart failure cases

評価工具 評価ツール Assessment

CORE ASSESSMENTS

- Lawton-Brody Instrumental Activities of Daily Living (IADL)
- Euro QoL-5D
- 6-minute walking test
- New York Heart Association functional class I ~IV
- Mini Nutrition Assessment (MNA Short Form)
- Cardiac ultrasound (Echocardiography)
- ACEI or ARB or ARNI
- Beta blocker

PROFESSION SELECTIVITY ASSESSMENTS

- Minnesota Living with Heart Failure Questionnaires (MLHFQ)
- The Kansas City Cardiomyopathy Questionnaire

衰弱高齢病患 衰弱した高齢患者 Frailty and Old Aged

- ≥ 75 years old
- Diagnosis: Parkinson's disease, dementia, chronic obstructive pulmonary disease, Chronic Kidney Disease (> Stage III)
- 72 hours < Admission < 30 days
- Clinical Frailty Scale, CFS: 5-7
- Training 2-3 weeks, max to 4 weeks
- Doctor need > 6 hours Geriatric Training



評価工具 評価ツール Assessment

1. Barthel Index
2. IADL
3. Clinical Frailty Scale
4. SMPSQ
5. Geriatric Depression Scale-5 item (GDS-5)
6. Confusion Assessment Method (CAM)
7. STEADI (Stopping Elderly Accidents, Deaths & Injuries)
8. Beers Criteria for Potentially Inappropriate Medication Use in Older Adults
9. Mini Nutrition Assessment (MNA Short Form)
10. EQ-5D

支払標準 支払基準

payment standard

INCLUDED FEE (NO MORE CHARGED)

- Hospitalization
- Ward
- Nursing
- Examination
- Rehabilitation treatment

EXCLUDED FEE (EXTRA-CHARGED)

- Medicine
- Pharmacy service
- treatment and disposal fee
- Operation
- Splint
- N-G tube irrigation and diet

費用 料金

Fee: bonus for > 75 years old

Inpatient

- 1,358~3,729 points
- High dose: 3~5 times/day
- Regular dose: 1~2 times/day

Outpatient

- 1,338~2,538 points
- Dose: 2~4 times/day

Home care

- 1,455 points/time
- Dose: 1~6 times/week

Burn-PAC

- 480~600 points/time

HF-PAC

- 600 points/time

職能治療項目 作業療法プログラム Occupational Therapy Program

PACOT1 姿勢訓練	姿勢トレーニング	Posture training
PACOT2 被動性関節運動	受動的な関節の動き	Passive Range of Motion Exercise
PACOT3 坐立平衡訓練	座位・立位のバランストレーニング	Sit-Stand Balance Training
PACOT4 移位訓練	シフトトレーニング	Transfer Training
PACOT5 減痙攣活動	抗痙攣活動	Anti-Spasticity Activity
PACOT6 運動知覚訓練	キネシオロジートレーニング	Kinesiology Training
PACOT7 知覚認知訓練	知覚認知トレーニング	Perceptual Cognitive Training
PACOT8 筋力訓練	筋力強化	Muscle Strengthening
PACOT9 協調訓練	調整トレーニング	Coordination Training
PACOT10 動作再学習技巧	動きの再学習テクニック	Movement Relearning Techniques

職能治療項目 作業療法プログラム Occupational Therapy Program

PACOT11 上肢(下肢)機能訓練	上（下）肢の機能訓練	Upper(lower) extremity function training
PACOT12 日常生活活動機能訓練	日常生活機能訓練の活動	ADL training
PACOT13 休閒運動治療	レクリエーション運動療法	Recreation and sport therapy
PACOT14 活動治療	活動療法	Activity therapy
PACOT15 輔具評価及訓練	補助具の評価とトレーニング	Device evaluation and training
PACOT16 副木製作	添え木	Splinting
PACOT17 失能防治介入	障害予防介入	Prevention disability intervention
PACOT18 上(下)肢矯治性治療	上肢（下肢）の矯正治療	Muscle Strengthening
PACOT19 感覚機能再訓練	感覚の再訓練	Sensory function retraining
PACOT20 居家環境評価與改造	住宅環境の評価と改修	Home environment evaluation and remodeling

職能治療在後急性病患照護的
角色功能

急性期後のケアにおける作業
療法の役割

The role of OT in post-acute Care

改善日常生活機能 日常生活動作の機能改善 Improve function in ADL and IADLs

- Both PAC programs would significantly improve the **physical function** and **quality of life** in patients with hip fractures. (Lee MC et al. 2022)

Table 3 Comparison of the change of physical impairment, functional performances, and quality of life before and after post-acute care using GEE models (the controls as reference).

	Group x Time		Group		Time
	Home	Hospital	Home	Hospital	
Pain ^a	-0.8 (-1.9~0.4)	-0.9 (-2.2~0.3)	0.3 (-1.0~1.5)	0.8 (-0.5~2.2)	-1.2 (-2.1 ~ -0.3)*
Hip range of motion ^a					
Flexion	20.1 (0.8~39.5)*	13.0 (-8.0~34.0)	-7.6 (-27.0~11.8)	16.8 (-37.9~4.2)	2.9 (-11.9~17.8)
Abduction	3.5 (-3.1~10.0)	1.3 (-5.8~8.3)	1.3 (-5.3~7.8)	3.6 (-3.6~10.7)	2.0 (-3.0~7.0)
Adduction	-3.1 (-9.6~3.3)	0.5 (-6.5~7.5)	2.9 (-2.2~8.1)	-0.3 (-5.9~5.3)	3.7 (-1.3~8.6)
External rotation	2.5 (-5.2~10.1)	0.5 (-7.8~8.8)	-0.4 (-6.3~5.6)	-1.6 (-8.0~4.9)	4.4 (-1.5~10.3)
Internal rotation	3.4 (-2.3~9.2)	2.8 (-3.4~9.1)	-1.1 (-7.2~4.9)	-1.3 (-7.8~5.2)	0.5 (-3.9~4.9)
30 s sit-to-stand					
Times ^a	1.2 (-0.8~3.3)	-0.2 (-2.4~2.1)	-1.5 (-3.7~0.7)	-2.3 (-4.7~0.2)	1.3 (-0.3~2.8)
Improvement, n (%) ^b	0.2 (0.0~1.1)	—	5.4 (0.8~34.7)	—	0.7 (0.2~2.5)
Barthel Index ^a					
Total	10.7 (1.8~19.6)*	5.0 (-4.6~14.6)	-2.0 (-11.0~6.9)	-9.2 (-18.9~0.6)	9.6 (2.8~16.4)*
Self-care	1.8 (-2.4~5.9)	1.3 (-3.3~5.8)	0.7 (-4.5~5.8)	-4.6 (-10.1~1.0)	5.0 (1.8~8.2)*
Mobility	8.9 (3.3~14.6)*	3.8 (-2.3~9.8)	-2.7 (-7.6~2.2)	-4.6 (-9.9~0.7)	4.6 (0.3~8.9)*
Harris hip score ^a					
Total	6.1 (0.6~11.5)*	4.9 (-1.0~10.8)	1.0 (-5.4~7.3)	-7.7 (-14.6 ~ -0.8)*	8.3 (4.1~12.5)**
Pain	3.8 (-0.6~8.1)	3.0 (-1.7~7.7)	-0.5 (-4.6~3.6)	-2.5 (-6.9~1.9)	4.0 (0.6~7.4)*
Non-pain	2.3 (-1.5~6.1)	1.9 (-2.2~6.0)	1.5 (-2.4~5.3)	-5.2 (-9.4 ~ -1.0)*	4.3 (1.4~7.2)*
EQ-5D (No problem) ^b					
Mobility, n (%)	11.2 (1.0~124.5)*	5.5 (0.5~64.4)	0.2 (0.0~2.1)	0.3 (0.0~3.1)	1.0 (0.2~4.4)
Self-care, n (%)	1.2 (0.1~19.6)	—	1.5 (0.1~18.3)	—	5.5 (0.6~51.7)
Daily activity, n (%)	—	—	789.1 (63.3~9841.0)**	—	—
Pain/discomfort, n (%)	7.1 (0.6~83.0)	2.8 (0.2~34.6)	0.1 (0.0~1.3)	0.2 (0.0~2.0)	2.0 (0.5~8.3)
Anxiety/depression, n (%)	1.4 (0.4~5.5)	2.8 (0.6~12.1)	0.5 (0.1~2.5)	0.5 (0.1~2.6)	0.7 (0.3~2.0)
EQ-index ^a	0.209 (-0.046~0.464)	0.342 (0.066~0.618)*	-0.182 (-0.440~0.077)	-0.467 (-0.747 ~ -0.188)*	0.059 (-0.136~0.254)

Notes: ^a β (95% confidence interval); ^b odds ratio (95% confidence interval).

Abbreviations: GEE, generalized estimating equations.

*p < 0.05.

**p < 0.001.

- PAC program significantly promoted **recovery of function** in stroke patients and helped them to return to their home and community. (Lai CL et al. 2017)

Table 2 Effect of functional performance and quality of life in patients with stroke

	N	Admission	Discharge	P-value
MRS	168	3.71±0.49	3.26±0.76	0.000*
B-ADL	168	44.08±23.38	70.24±29.41	0.000*
LB-IADL	168	1.5±1.42	3.0±2.34	0.000*
FOIS	168	5.48±1.86	6.33±1.28	0.000*
MNA	168	10.72±3.51	12.70±5.04	0.000*
EQ-5D:mobility	168	2.11±0.42	1.71±0.57	0.000*
EQ-5D:self-care	168	2.42±0.56	1.93±0.69	0.000*
EQ-5D:usual activities	168	2.33±0.53	1.89±0.62	0.000*
EQ-5D:pain/discomfort	168	1.19±0.48	1.13±0.37	0.203
EQ-5D:anxiety/depression	168	1.32±0.53	1.14±0.38	0.000*
BBS	168	18.48±16.32	35.98±18.08	0.000*
MMSE	161	19.05±9.22	22.16±9.84	0.001*
CCAT	58	8.74±3.88	9.25±3.91	0.823

Notes: *P<0.05. Data presented as mean ± SD unless otherwise indicated.

Abbreviations: MRS, Modified Ranking Scale; B-ADL, Barthel Activity Daily Living index; LB-IADL, Lawton-Brody Instrumental Activity Daily Living scale; FOIS, Functional Oral Intake Scale; MNA, Mini Nutrition Assessment; EQ-5D, EuroQol Five Dimensions questionnaire; BBS, Berg Balance Scale; MMSE, Mini Mental State Examination; CCAT, Concise Chinese Aphasia Test.

改善日常生活機能 日常生活動作の機能改善

Improve function in ADL and IADLs

- PAC data base N=436 , Excluded 102 patients,
 - Non-PAC group (N=212, 63%)
 - PAC group (N=122, 37%)
- BI, MNA-SF, EQ-5D, Instrumental ADL, and MMSE PAC group were better than non-PAC group

Measures	Non-PAC		ES of after admission versus before	PAC		ES of after admission versus before	Mean difference in ES of PAC versus Non-PAC (95% CI)
	(n = 212)			(n = 122)			
	Before	After		Before	After		
	Mean ± SD	Mean ± SD		Mean ± SD	Mean ± SD		
Primary outcome							
BI	37.11 ± 23.55	52.52 ± 26.03	0.54	37.06 ± 23.96	68.07 ± 27.47	1.08	0.54 (0.38–0.71) *
Secondary outcome							
FOIS	5.81 ± 2.04	6.33 ± 1.46	0.23	5.84 ± 1.93	6.69 ± 1.07	0.37	0.14 (– 0.01–0.30)
MNA-SF	10.67 ± 2.20	11.43 ± 2.00	0.33	10.38 ± 1.57	11.74 ± 1.73	0.59	0.26 (0.10–0.42) *
EQ-5D	0.05 ± 0.32	0.21 ± 0.31	0.36	0.02 ± 0.38	0.40 ± 0.34	0.86	0.50 (0.33–0.66) *
IADL	4.33 ± 2.96	4.59 ± 2.83	0.12	3.60 ± 2.03	4.86 ± 2.51	0.56	0.44 (0.28–0.60) *
MMSE	20.02 ± 9.36	22.02 ± 8.99	0.31	20.50 ± 9.06	24.57 ± 7.83	0.65	0.34 (0.17–0.50) *

SD standard deviation, CI confidence interval, ES effect size, PAC post-acute care, BI Barthel index, FOIS functional oral intake scale, MNA-SF mini nutrition assessment-short form, EQ-5D EuroQoL-5D, IADL Lawton–Brody instrumental activities of daily living scale, MMSE mini-mental state exam.

*p value < 0.05.

改善日常生活功能 日常生活動作の機能改善

Improve function in ADL and IADLs

- 2014/03-2016/09, 6839 consecutive stroke patients
- Functional status had improved in 87.5%
- Mean modified Rankin Scale score from 3.7 to 3.0

Scales	2014			2015		
	Before, mean	After, mean	p^a	Before, mean	After, mean	p^a
Barthel index	39.8	63.8	<0.001	39.3	63.3	<0.001
Instrumental activities of daily living	1.4	2.4	<0.001	1.4	2.3	<0.001
Modified Rankin Scale	3.7	3.0	<0.001	3.7	3.1	<0.001
EuroQol five dimensions questionnaire	10.5	8.6	<0.001	10.3	8.6	<0.001
Functional oral intake scale	5.8	6.4	<0.001	5.7	6.4	<0.001
Mini nutritional assessment	18.0	19.9	<0.001	18.3	20.2	<0.001

Note: The data was counted as of December 2015 and released publicly by Taiwan's administration of national health insurance in a forum for post-acute care.

^a Compared with paired t-test.

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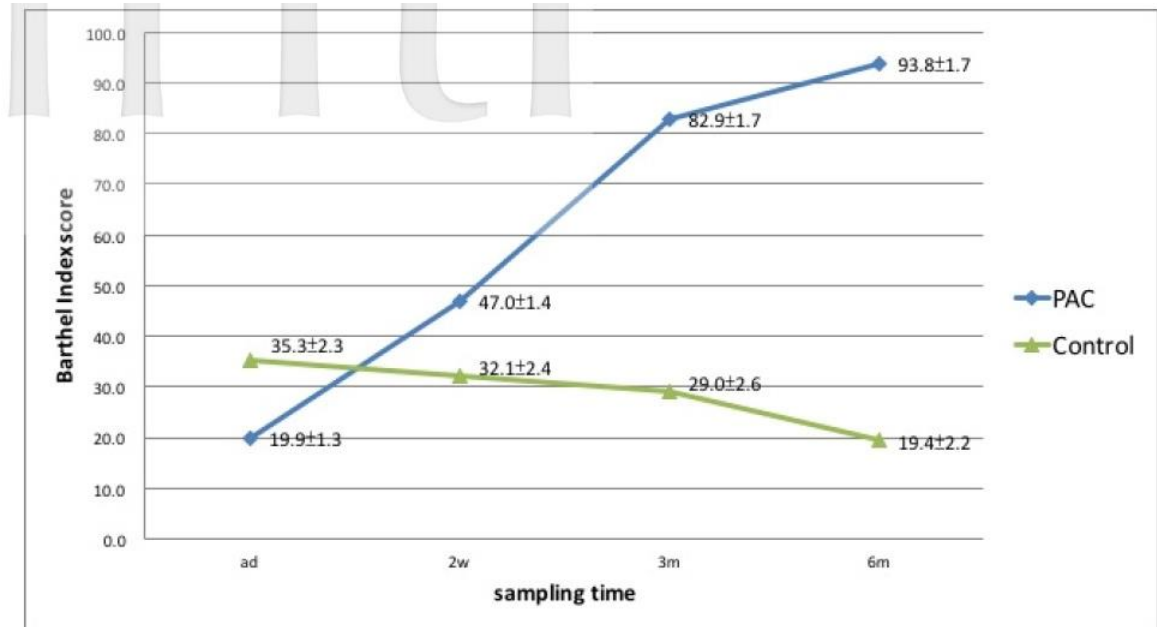
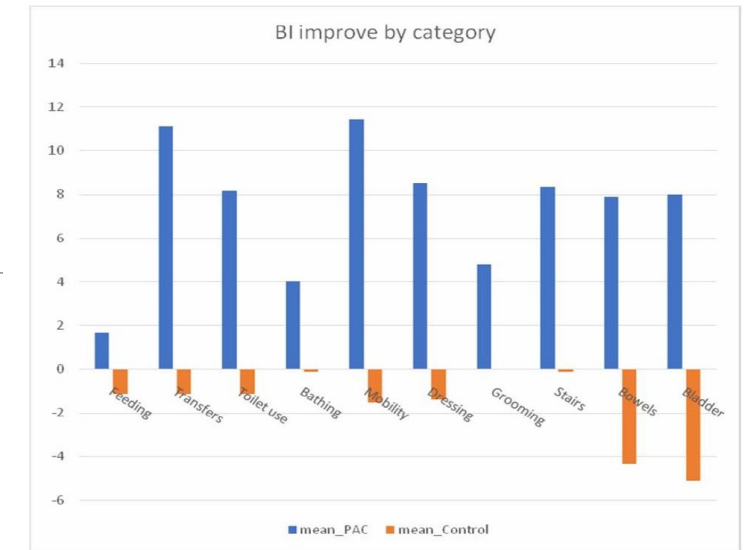
[Three years of the nationwide post-acute stroke care program in Taiwan](#)

Hsieh, Cheng-Yang; Tsao, Wei-Chia; Lin, Ruey-Tay; Chao, A-Ching
Journal of the Chinese Medical Association 81(1):87-88, January 2018.

doi: 10.1016/j.jcma.2017.09.003

改善日常生活功能 日常生活動作の機能改善 Improve function in ADL & IADLs

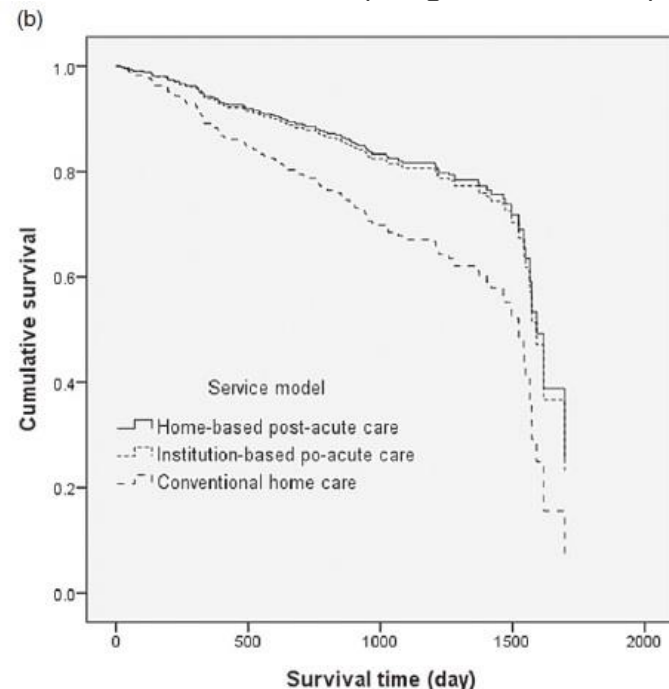
- The **functional recovery** in patients with hip fracture was significantly increased at 2 weeks after comprehensive rehabilitation relative to that of the control group.
- The improvement in patients with hip fracture was **better in the PAC group** than in the control group at the 2-weeks, 3-months, and 6-months follow-ups.



降低死亡率與醫療花費 死亡率と医療費を削減

Reduce mortality and medical costs

➤ **Hip fractures** patients received inhome or community hospital post-acute care following surgery, their **motor function** could be recovered within a **short time** and **long-term mortality would drop significantly**. (Peng LN et al. 2016)



➤ The home-based PAC program demonstrated the best cost-effectiveness ratio for BI (NTD 554) and EQ-5D (NTD 41948). (Lee MC et al. 2022)

Table 4 Comparison of the costs and cost-effectiveness among three groups.

	Control (n = 12)	Home (n = 17)	Hospital (n = 12)	p
Direct medical cost				
Mean ± SD	47,260 ± 153,716	11,242 ± 4769	46,211 ± 25,634	
Median (range)	1491 (0 ~ 535,142)	9691 (5313 ~ 23,894)	42,085 (18,434 ~ 123,442) ^{c,d}	<0.001
Non-direct medical cost				
Mean ± SD	11,816 ± 19,115	16,863 ± 18,117	23,554 ± 22,161	
Median (range)	2725 (290 ~ 65,200)	12,900 (570 ~ 61,000)	24,277 (1000 ~ 68,200)	0.218
Total cost				
Mean ± SD	59,076 ± 151,532	28,105 ± 20,755	69,765 ± 41,743	
Median (range)	9202 (290 ~ 536,427)	23,261 (7873 ~ 73,249)	58,019 (36,034 ~ 191,642) ^{c,d}	0.001
Cost-effectiveness ratio ^a				
Barthel Index	4923	554	3165	
EQ-index	801,017	41,948	115,239	
Incremental cost-effectiveness ratio ^a				
Barthel Index	Reference	-3366	-210	
EQ-index	Reference	-172,335	-3067	
Incremental cost-effectiveness ratio ^b				
Barthel Index	Reference	1244	43,304	
EQ-index	Reference	60,839	160,385	

Unit: New Taiwanese Dollars (NTDs).

Abbreviations: SD, standard deviation.

^a The direct medical cost was used in the analysis.

^b The direct medical cost was used in the analysis (The patient in the control group with a second hip fracture was excluded).

^c Significant difference between control and Hospital PAC ($p < 0.001$).

^d Significant difference between Home PAC and Hospital PAC ($p < 0.05$).

降低死亡率與醫療花費

死亡率と医療費を削減

Reduce mortality and medical costs

➤ 2014/03-2018/10 , 910 patients with stroke between were separated into:

- PAC group (at two medical centers)
- non-PAC group (at 3 regional hospitals and 1 district hospital)

➤ Total direct **medical cost**: PAC < non-PAC

➤ Functional status: PAC > non-PAC

➤ One-year rehabilitation training: PAC > non-PAC

Table 2. Annual economic burdens of total direct medical cost per patient in PAC and non-PAC cohorts before and after one-year rehabilitation.

Cost Components	PAC Cohort (n = 455) #	Non-PAC Cohort (n = 455)	Differences (PAC–non-PAC)	Economic Burden *
	Mean ± SD	Mean ± SD		
Diagnosis fee		1089.0 ± 157.3		
Ward fee		2882.2 ± 560.9		
Examination fee		1619.0 ± 373.9		
Medicine and pharmacy service fee	4139.5 ± 1798.1	450.1 ± 25.1		
Rehabilitation therapy fee		1103.5 ± 273.6		
Other fees		1785.9 ± 430.9		
Total direct medical cost during rehabilitation	4139.5 ± 1798.1	8929.8 ± 1827.1	–4790.3 ± 1805.7	
Total direct medical cost after discharge	1187.2 ± 1148.6	1246.0 ± 1203.6	–58.8 ± 35.6	
Total direct medical cost	5326.7 ± 1933.5	10,175.8 ± 2377.9	–4849.1 ± 2685.7	–354,886,232.6

PAC, post-acute care; SD, standard deviation; ICER, incremental cost-effectiveness ratio. # Mean direct medical cost for the PAC cohort, hospitals will receive a packaged and function-related reimbursement by day, that is, a maximal packaged imbursement of US \$117.6 per day for high-intensity rehabilitation or US \$79.0 per day for general-intensity rehabilitation covering whole medical expenses for stroke care, managing associated comorbidities and complications, and rehabilitation. * Economic burden during 1 year after rehabilitation is US \$4849.1 per patient × 318.2 patients per 100,000 person-year (age-standardized incidence of first-ever stroke) × 23,000,000 persons (Taiwan nationwide population). Therefore, annual per-patient economic burden of total direct medical cost approximately equals to US \$354.6 million.

(Chiu CC et al. 2021, <https://doi.org/10.3390/brainsci11020161>)

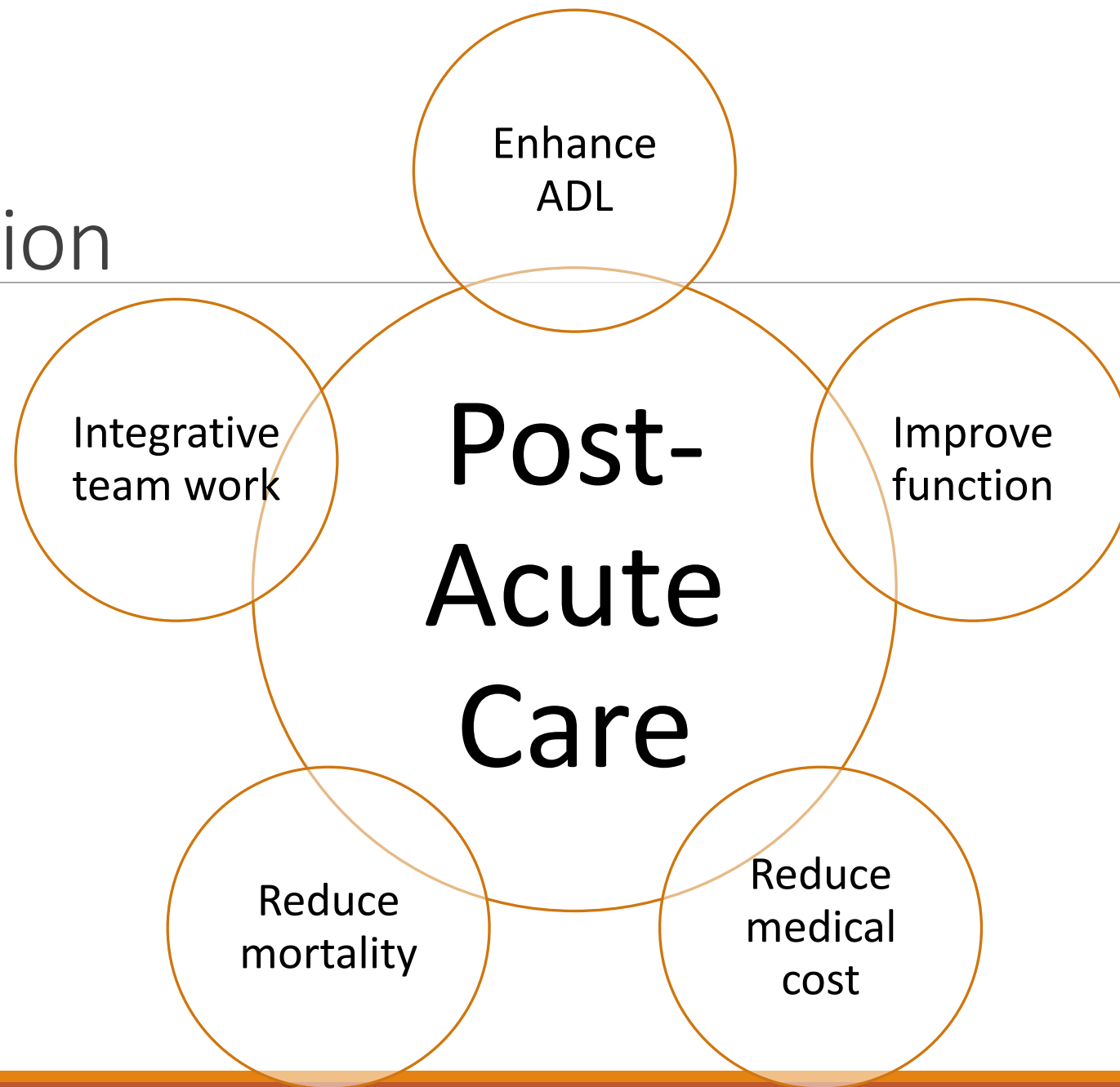
職能治療在後急性病患的照顧

急性期後の患者のケアにおける作業療法

Occupational therapy in Post-Acute Care

- Proactive participation at the discharging planning
- Patients, the families and other health care professionals can all benefit
- Patient-centered
- Improve patient's ability to self care
- Enhance the performance of activities of daily life
- Return to normal community life as early as possible (such as fall prevention)
- Shorten hospital stay
- Reduce health care expenses
- Achieve a satisfactory recovery both physically and mentally

結論 結論は Conclusion



謝謝聆聽
聞いてくれてありがとう
Thanks for listening
