



臺北市立萬芳醫院 - 委託臺北醫學大學辦理

Taipei Municipal Wanfang Hospital (Managed by Taipei Medical University)

# 藥師門診在口服抗癌藥物 治療中的價值與挑戰

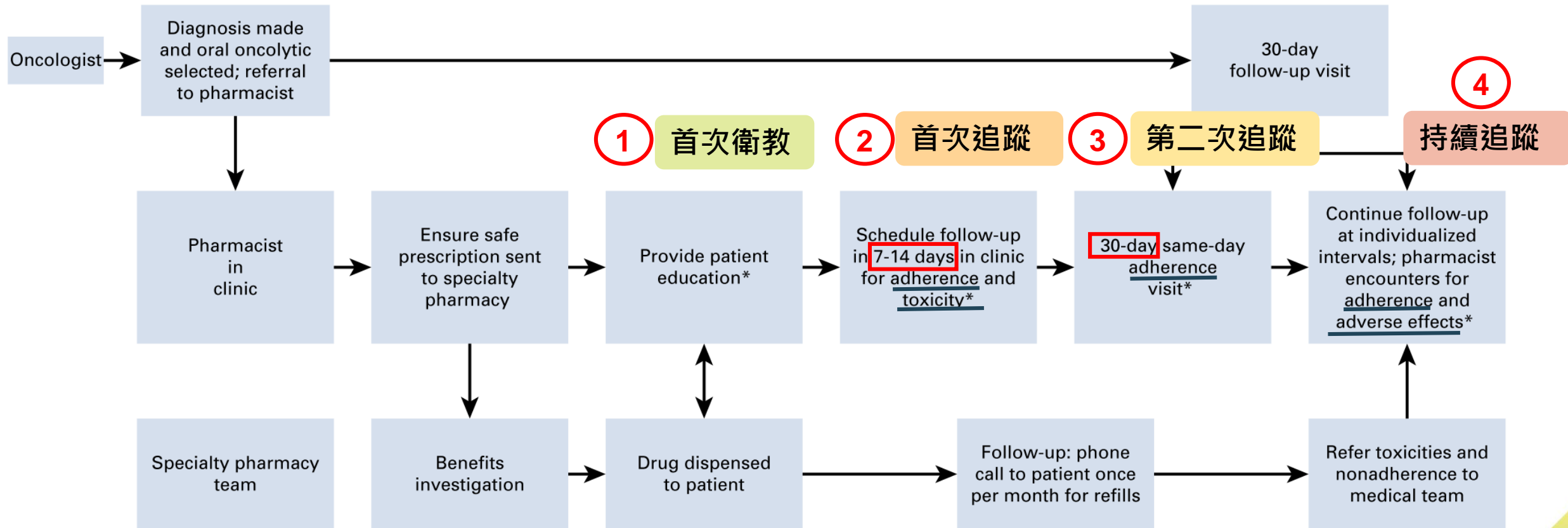
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# HOPA Pharmacy Standard for Oral Oncolytic Management



# HOPA Pharmacy Standard for Oral Oncolytic Management

## 衛教

Pharmacists should be involved in the development or endorsement of standardized education materials, and education should be consistent across the oncology care team

A separate education visit—in person or over the phone—should occur after the oncologist's initial prescribing visit and before the start of oral oncolytic therapy to supplement and reiterate the information provided during the oncologist visit

Education should be comprehensive (see Education) and focus on patient self-care management of oral oncolytic adverse effects and the importance of medication adherence

An assessment of patient knowledge, confidence to manage adverse effects, and need for follow-up should occur during the education session

Patient caregiver attendance at the education session is encouraged

提供衛教資料

用藥前衛教  
持續性追蹤

自我照護技巧

評估了解程度

照護者共同參與

# HOPA Pharmacy Standard for Oral Oncolytic Management

## 持續追蹤

A consistent process with standardized tools should be used in the oncology clinic setting for monitoring and follow-up

An oncology pharmacist should be involved in the creation of monitoring and follow-up materials and, ideally, in the assessment and monitoring of a patient's symptoms and medication adherence

Initial monitoring of symptoms and adherence, including PROs, should occur between 7 and 14 days after the start of treatment

Ongoing monitoring of symptoms and adherence, including PROs, should occur at each clinical encounter, at least before each refill

Medication reconciliation should occur at each assessment point above, ideally by a pharmacist

Adherence assessment should be user friendly, reliable, cost effective, and practical

Collaborative practice agreements, including laboratory and symptom monitoring, should exist in settings in which clinical oncology pharmacists are part of the interdisciplinary oncology care team

Communication within the oncology team and with the patient's PCP should be ongoing

監測症狀及順服性

用藥後一至二週需  
做第一次追蹤

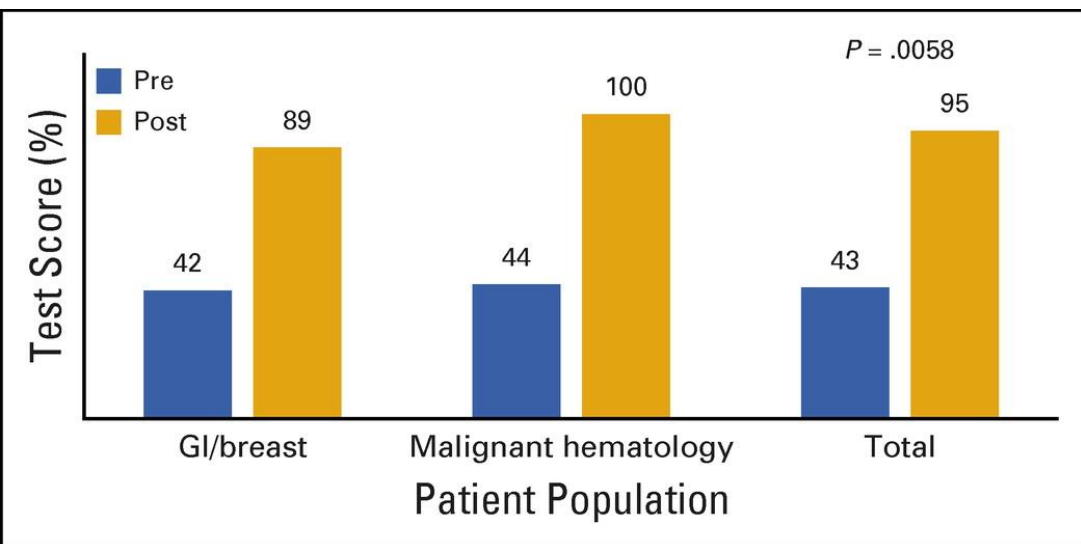
於病人每次回診時  
追蹤

用藥連貫性

檢驗數值及症狀監測

# 美國一機構執行口服抗癌藥事服務成效

## 增加病患用藥知識



## 增加病患用藥順服性

Patient Population	Self Reported Adherence	Medication Possession Ratio
Hem malignancy	94.7%	93.9%
Breast/GU	86%	85%
All Patients	89%	

# 美國一機構執行口服抗癌藥事服務成效

## 增加慢性骨髓性白血病治療效果

Response	Percentage (No.)			P
	Clinical Trial	Preintervention	Postintervention	
100% adherence	41 (36 of 87) <sup>7</sup>	48 (14 of 29)	60 (12 of 20)	.253*
> 90% adherence	74 (64 of 87) <sup>7</sup>	NA	95 (24 of 26)	.104†
EMR (PCR < 10%)	66 <sup>13,14</sup>	54.8 (17 of 31)	88.9 (16 of 18)	.0138*
MMR at 12 months (PCR < 0.1%)	60 <sup>9-12</sup>	57.6 (19 of 33)	83.3 (15 of 18)	.0575*

# 成效分享

## Effectiveness of pharmacist-managed oncology ambulatory care for patients with non-small cell lung cancer in Taiwan

Ding-Cheng Liu <sup>a</sup>, Chuan-Lun Hung <sup>a</sup>, Yi-Wen Chen <sup>b</sup>, Li-Na Kuo <sup>a,b</sup>, Yen-Chun Hsin <sup>a,b</sup>,  
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# 研究流程

## Patients with advanced NSCLC

- Initiate erlotinib, gefitinib, afatinib during Jan 2017 to Dec 2020
- Treatment duration > 1 month
- Monotherapy
- Without other cancer

## Intervention group

- Visit pharmacy clinic  $\geq$  2 times within 3 months

## Non-intervention group

## Outcome

- Safety
- Hospital visit and costs
- Medication use



# 副作用比例

	Intervention (n = 40)	Nonintervention (n = 97)	p value	Intervention (n = 40)	Nonintervention (n = 97)	p value
Event	Any grade			Grade $\geq 3$		
All events	40 (100)	88 (91)	0.046	1 (3)	3 (3)	0.807
Skin-related adverse events, no. (%)						
Acneiform rash	30 (75)	47 (49)	0.004	1 (3)	3 (4)	0.709
Mucositis	16 (40)	20 (21)	0.021	1 (3)	1 (1)	0.545
Dermatitis	12 (30)	9 (9)	0.002	1 (3)	1 (1)	0.502
Paronychia	34 (85)	27 (28)	0.000	—	—	—
Skin itching	9 (23)	12 (12)	0.135	—	—	—
Skin reaction	14 (35)	40 (41)	0.497	2 (6)	8 (8)	0.607
Hand-foot syndrome	9 (23)	18 (19)	0.598	—	—	—
Gastrointestinal adverse events, no. (%)						
Nausea	7 (18)	19 (20)	0.777	2 (5)	3 (3)	0.585
Diarrhea	31 (78)	50 (52)	0.005	5 (13)	2 (2)	0.017
Vomiting	3 (8)	14 (14)	0.263	1 (3)	2 (2)	0.901
Adverse events related to the liver and kidneys, no. (%)						
Elevated creatinine	19 (48)	33 (34)	0.139	1 (3)	1 (1)	0.515
Abnormal liver function	19 (48)	43 (47)	0.979	2 (5)	3 (3)	0.639



# 就醫次數及醫療費用

	Intervention (n = 40)	Nonintervention (n = 97)	p value
Hospital visits (times/month)			
Hospitalization	0.13 ± 0.20	0.22 ± 0.36	0.062
Emergency department visits	0.04 ± 0.08	0.17 ± 0.40	0.005
Outpatient department visits	2.77 ± 1.46	2.93 ± 1.70	0.609
Unexpected outpatient department visits	0.15 ± 0.24	0.34 ± 0.68	0.017
Cost, NT\$/month (mean ± SD)			
Outpatient department	48,848.55 ± 25,315.39	70,694.21 ± 13,721.48	0.134
Emergency department	230.71 ± 339.17	782.44 ± 1,992.57	0.01
Hospitalization	105,795.02 ± 153,794.72	101,341.06 ± 209,669.21	0.903
Supportive medications	202.89 ± 144.41	224.19 ± 398.01	0.743

# 口服標靶藥使用情形

	Intervention (n = 40)	Nonintervention (n = 97)	p value
Dose adjustment, no. (%)	10 (25)	18 (19)	0.395
Reason, no. (%)			
Intolerance	3 (30)	13 (72)	0.031
Disease progression	2 (20)	4 (22)	
Other	5 <sup>a</sup> (50)	1 (6)	
Dose interruption, no. (%)	7 (18)	23 (24)	0.424
Reason, no. (%)			
Intolerance	6 (86)	18 (78)	0.666
Other	1 (14)	5 (22)	
Permanent discontinuation, no. (%)	25 (68)	66 (76)	0.166
Reason, no. (%)			
Intolerance	1 (4)	14 (21)	0.048
Disease progression	22 (88)	41 (62)	
Death	0 (0)	8 (13)	
Other	2 (8)	3 (5)	
Treatment duration (mean ± SD)	17.3 ± 2.1	12.8 ± 1.3	0.078
Relative dose intensity (mean ± SD)	0.938	0.956	0.637

# 總結

- 癌症病患及口服抗癌藥與日俱增，藥師需更加關注這個族群。
- 口服抗癌藥事服務價值
  - 美國經驗：可增加病患用藥知識及順服性。
  - 萬芳經驗
    - 減少就醫次數
    - 減少醫療費用
    - 減少不耐受而調整劑量或停藥
- 挑戰：需整合多層面因素，以提升此藥事服務模式之規模及量能。





# 謝謝聆聽

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