

Nuovi farmaci e nuove tossicità in oncologia

Year 2018 Il punto di vista dell'infermiere

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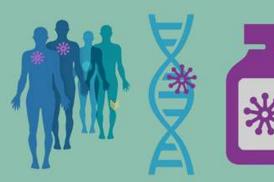
ROMA - 19 dicembre 2018 NH Collection Vittorio Veneto



**Targeted therapy** is one of the major modalities of medical treatment (pharmacotherapy) for cancer, others being hormonal therapy and cytotoxic chemotherapy.

As a form of molecular medicine, targeted therapy blocks the growth of cancer cells by interfering with specific targeted molecules needed for carcinogenesis and tumor growth, rather than by simply interfering with all rapidly dividing cells.

Because most agents for targeted therapy are biopharmaceuticals, the term biologic therapy is sometimes synonymous with targeted therapy when used in the context of cancer therapy. However, the modalities can be combined; antibody-drug conjugates combine biologic and cytotoxic mechanisms into one targeted therapy.





### Target Therapy

The incorporation of targeted therapies into clinical practice is creating a new paradigm in the management of cancer.

#### **Current Validated Targets for Cancer Therapy**

Target	Drug	Mechanism	Indication
EGFR	Cetuximab	Anti-EGFR	EGFR-expressing metastatic colorectal cancer
Tyrosine kinases	Gefitinib, erlotinib	EGFR kinase inhibitors	Advanced non-small cell lung cancer
HER-2	Trastuzumab	Anti-HER2	HER2-overexpressing breast cancer
VEGF	Bevacizumab	Anti-VEGF	Metastatic colorectal cancer
Bcr-Abl	Imatinib	Abl kinase inhibitor	Philadelphia chromosome-positive chronic myelogenous leukemia
c-Kit	Imatinib	c-Kit kinase inhibitor	c-Kit positive advanced gastrointestinal stromal tumor
CD20	Rituximab	Anti-CD20	Recurrent or relapsed CD20-positive, low-grade, B-ce non-Hodgkin's lymphoma
Proteasome	Bortezomib	Anti-26S proteasome	Relapsed multiple myeloma

Research is ongoing to optimize the use of targeted agents as single agents, in combination, and in multimodality therapy.





Of 790 adverse events listed, 78 were deemed suitable for patient self-reporting, along with characterisations of the severity or frequency of symptoms or the extent to which they interfere with everyday activities.

Mucositis oral Mouth or throat sores

Fatigue Numbness or tingling in hands or feet

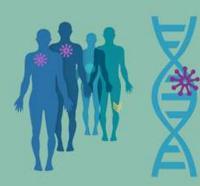
Pruritus Itchy skin

Rash acneiform Acne or pimples on the face or chest

Arthralgia Aching joints

Myalgia Aching muscles

Journal of the National Cancer Insitute, 2016, 106(9):diu244



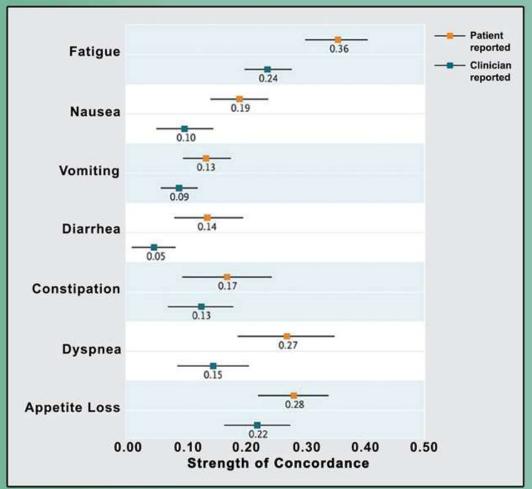




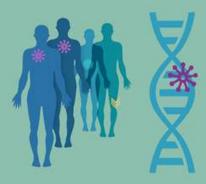
### Target Therapy

#### Side effects

Clinicians' perception, patients' reality



Patients' self-assessment of adverse events consistently correlate better with their overall health status than clinicians' assessments, according to the findings of a study done at New York's Memorial Sloan Kettering Cancer Center, involving 467 people with breast, lung, genitourinary, or gynaecologic cancers over a total of 4034 clinic visits.





Seminars in Oncology Nursing, Vol 22, No 1 (February), 2006: pp 1–4



53-89%/

favouring oral therapy

57%

consider that oral chemotherapy is less toxic, offers better quality of life and is an easier method of than intravenous therapy.



Pharmacologic anticancer therapies are increasingly shifting from **clinic-based** 

infusions to orally-administered medications by patients and/or their informal caregivers, there by changing patient and health professional roles, responsibilities, and priorities.







Description of Interventions prescribing (n = 1)

Preparation/administration (n = 5)

Education (n = 11)

Despensing (n = 2)

Monitoring (n = 14)

Storage/disposal (n = 1)







- Patients identification
- Weight, height, surface area
- Cancer type
- Regimen and doses; trial name or number if applicable
- Route of administration (oral, IV, IV Infusion, IM, SC)
- Number of cycles intended
- Frequency of cycles and of administration within a cycle
- Investigation necessary prior to starting the whole course
- Investigation to be performed serially during the and their intended frequency
- Number of cycles
- Planned attendances managed by agreed non-medical staff
- Site of administration (PTC, POSCU, Community)





The majority of oral targeted therapies will be selfadministered at home by the patient. As with oral cytotoxic therapy, patients should be given verbal information and a written plan that includes when the drug should be taken and if it should be taken before or after food, adverse effects and any drugs or foods that need to be avoided.

The labelling of oral targeted therapy, like cytotoxic therapy, should clearly state the dose and the number of tablets to be taken. It is important that the patient understands when continuous dosing may be required or when the drug is given on a cyclical basis.



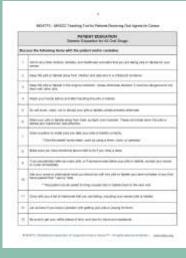


## Target Therapy Marget Therapy

#### MOATT





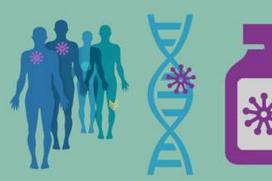












# Target Therapy Adherence

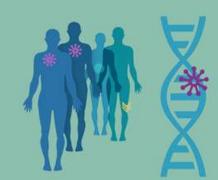
Like for any chronic treatment regimen, the literature has emphasized how adherence has become a significant problem, interfering with the disease prognosis. In fact, within the first 4 years of treatment, about 20% of patients discontinue taking oral therapy (Chlebowski & Geller, 2007).

#### Adherence:

"the level of the patient's behavior – related to taking medication, maintaining a diet and/or changing behavior in lifestyle – which agree with the specialist's advice"

(Haynes, Taylor & Sackett, 1979)

A strong emphasis is placed in the literature on the need to differentiate adherence from compliance. Adherence is based on a therapeutic alliance, and requires more patient agreement on a shared plan of care than compliance that is based on a paternalistic approach by health professionals (WHO, 2003).







The complex processes of target therapy (from prescribing to administration to disposal) have multiple challenges for variability and error.

Most of the mistakes were attributed to patients not receiving sufficient information on how to properly take the medications









Poor adherence to an oral chemotherapy regimen may decrease the treatment's effectiveness and even worsen survival, while toxic effects experienced by patients in routine practice may be greater than those initially reported in clinical trials.

Medication adherence is an indicator of therapeutic response in cancer care management



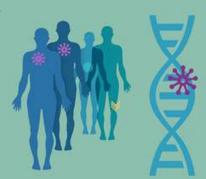




Adherence estimates for patients taking oral agent medications (OAMs) range from less than 20% to 100%, but are typically between 50% and 90%.

OAMs adherence levels are lower than IV anticancer therapies.

10% of patients on newly-prescribed OAMs never pick up the prescription to start treatment, which could lead to severe consequences.

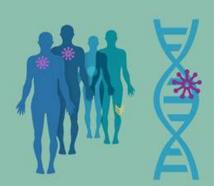






The main factors that influence patient therapeutic adherence were classified as:

- ✓ Patient-related factors (perceptions about the drug)
- ✓ Treatment-related factors (side effects)
- ✓ Disease-related factors (comorbidities)
- ✓ Health system factors (follow up, conflicting information)
- ✓ Social and economic factors (age, additional costs)
- ✓ Psychological factors (anxiety and depression), the quality of information received, the patient's beliefs, and especially distress may contribute to non-adherence







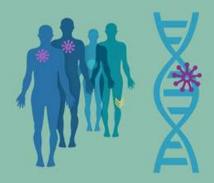
Interventions to promote adherence and safety require several components to target these barriers, and health professionals must follow a systematic process to assess all the potential barriers.

### Given that interventions are available, why the poor adherence is still present?

Interventions would be focused on:











#### Aim

To explain the levels of adherence and distress in women with breast cancer.

#### Method

Mixed-Methods design with:

- Explanatory sequential approach
- Quantitative priority for data collection and analysis (Creswell et al, 2011).





p value

## Target Therapy A study

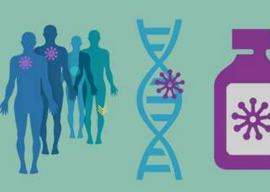
**Quantitative Results** 

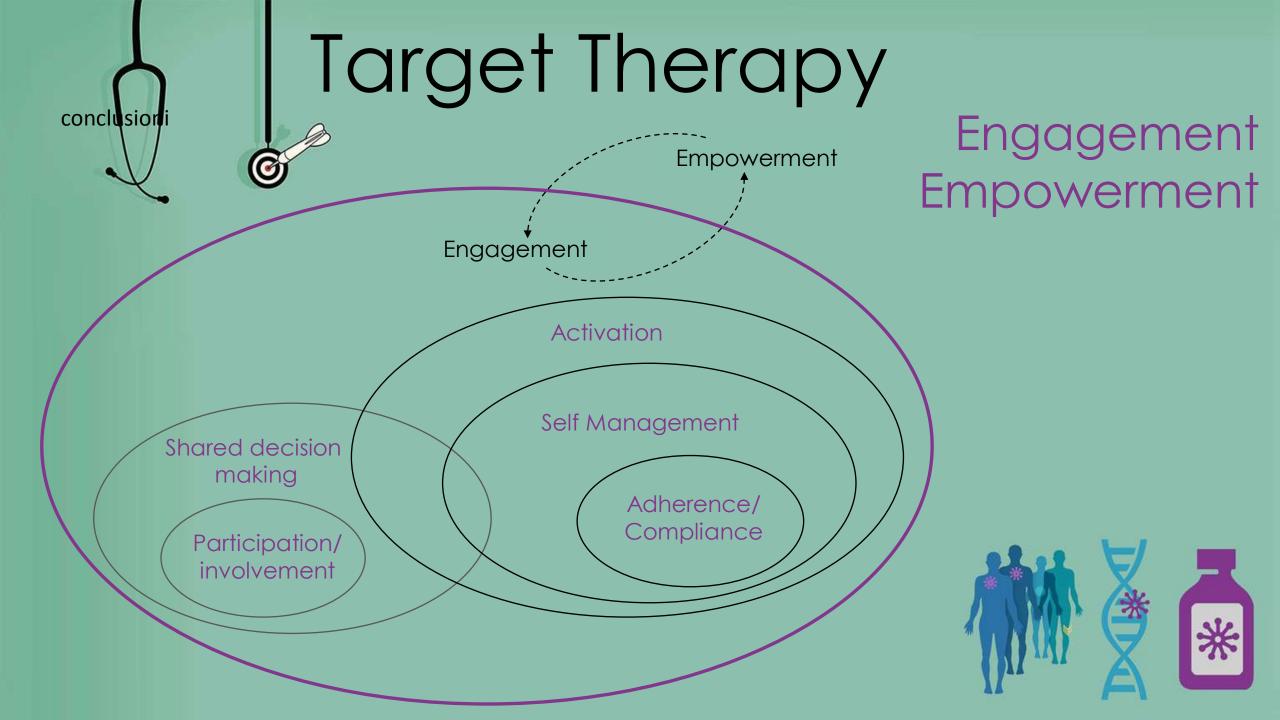
Variable

Explanation

vanable	p value		
	p 0.05	"I do what the doctor tells me to do" (P23)	
Education Level		" if you are prescribed them you have to take them due to thecircumstances. I am not a doctor I cannot interfere with the doctor's decisions" (P14)	
		" It's a compulsory, because the doctor told me to, not because I want to" (P4)	
	p 0.04	"My family members' support have helped me a lot" (P1)	
Marital Satus		my husband has to remind me (P11)	
		Thanks to the support of my family I was able to live with it well (P27)	
Variation and District	p 0.03	"Now, due to my situation I am not living a happy life because it limits me in my everyday activities, things that I am	
Young age/Relationship Distress Level		used to doing every day It is unbearable" (P14)	
Level		"The tablet, I take it also because the fear is so great and I have a son to raise". (P7)	
Advanced age/ Comorbidities/ Practical Distress.	p 0.02	It is disabling I am forced to accept physical pain and suffering (P14)	
	p 0.02	"And there's also the	
Occupation/ Practical Distress		commitment to undergoultrasounds every 4 or 6 months," (P10)	
Occupation/ Fractical Distress		"A factor could be created from the discomfort of having to take in front of other people who can ask: 'but how long	
		do you have to take it for?' or 'but it is a light chemo?'" (P12)	
	p 0.01	" increased pain slowly I gained weight despite not eating much, I had	
		trouble sleeping" (P15)	
		"it has totally ruined my health I believe this has caused most of my problems increased fat liver disease, bone	
		and joint pain, weight gain, hot flushes" (P22)	
		"it has greatly had an impact on my sexual life because of vaginal dryness, flushing " (P24)	
Side effect/Adherence		"I am scared because of the possible side-effects this drug may give" (P2)	
		" I have read the pros and cons, so I'm afraid, but I have to I have to take it!"(P7)	
		" when I was told of the possible side effects I said to myself: "oh, my God!" (P26).	
		" the only thing that I am afraid of is what I have heard from other people saying that once you get to the fifth year and have stopped therapy, a little later they found out that the cancer had returned again" (P1)	

#### Results







### Target Therapy

Risk Reduction, Early Detection and Health Promotion In Cancer Care Cancer Pathophysiology and the Principles of Treatment Decision Making

Supporting People Living with, through and beyond cancer

> Supporting People During advanced Disease and at EOL

Cancer Treatment
And Safety

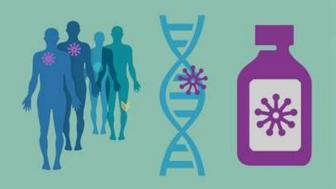
**Communication in Cancer Care** 

Leadership and Management in Cancer Nursing

Research Utilization in Cancer Care



The EONS
Cancer Nursing
Education Framework





### Target Therapy

### KNOWLEDGE

NURSING RESEARCH INNOVATION

**ADVOCACY** 

SELF-MANAGEMENT

DEVELOPING NURSE SCIENTISTS

HEALTH STRATEGIES

PERSONALIZED END-OF-IDUALS TECHNOLOGY





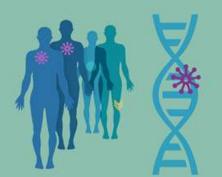




With target therapy, patients and caregivers must be thoroughly educated and understand the potential dangers associated with taking such medications.

Nurses designated to care for people taking oral target therapy can help patients and caregivers to understand the importance of adherence.

Patients and their caregivers should be able to recognize side effects and report immediately if any occourse, as well as to handle their therapy.





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