




Clinical significance of non-compliance in cancer treatment

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„ (..) my doctor says: „You have to start the treatment” .

OK. He knows better. He is intelligent and educated. I trust him and I have started the treatment. First day, ok, so it will be good. But the second day, I am sick, I can not work, I am vomiting constantly and I have diarrhea...

I am looking at myself. Nothing change!!! I look quiet good. Why have I take these terrible drugs???!”




The patient feels that must
start treatment depend on
unpleasant diseases symptoms

Sabate E. Adherence to long-term
therapies. Evidence for action.
WHO, Geneva, 2003



Compliance


the extent to which patients
follow treatment instructions



The patient's active participation in the treatment **is especially important** during **modern anticancer chemotherapy**, which depends on administration of **high doses of toxic cytostatics** and other drugs with narrow therapeutic index



**Rates of compliance to oral
drugs vary between
19% and 100%**




Non- compliance to regimens
of tamoxifen therapy
between 15% and 50%
with follow-up 2 and 5 years




Compliance depends on

- the specific clinical situation
- the nature of the illness
- the treatment program



Types of non-compliance

- the patient **fails to obtain** the medication
- the patient **fails to take** the medication as prescribed
 - in the correct dose, at the correct time...
- the patient **prematurely discontinues** the medication
- the patient **takes** medication **inappropriately**



Types of non-compliance

- **intentional non-compliance**

patients makes a specific decision not to take
the prescribed medication

- **non-intentional non-compliance**

the result of forgetting or misunderstanding
instructions about the drug schedule



Factors associated with non-compliance

1. Sociodemographic:

age

younger women or women who had undergone mastectomy rather than breast-conserving surgery being less likely to comply

sex

level of education

marital status

race

cultural influences

loneliness



Factors associated with non-compliance

2. Discomfort resulting from treatment (e.g. adverse side-effects, treatment duration)

Compliance is less likely where the benefits of drugs are not immediately obvious

five-year hormone breast cancer regimen does not offer a guarantee of recurrence-free survival but does produce side-effects

3. Similar pills



Factors associated with non-compliance

4. Personal judgments about the effectiveness of the proposed treatment

„positive- node status = complete curing”

5. Unstable life mode

6. Irregular time of work

7. Maladaptive coping styles (e.g. denial of illness)

8. Mental disorders (e.g. depression)



Factors associated with non-compliance

9. Psychological reasons

Women with breast cancer after effective surgery and chemotherapy treatment does not want to continuing hormone regimens for several years

Tablet taking is a constant cancer reminder!!!

Patients who believes they have greater influence over their situation are more likely to compliance

Patients with fatalistic view of their situation are less compliance



Factors associated with non-compliance

10. Financial hardship, availability and access to healthcare
11. Insufficient explanation of therapeutic decisions
12. Disturbance in the communication doctor-patient
13. Too much doctors treat patient in this same time
14. Frequent changes of doctors

The most important reasons of non-compliance

| The reason | Frequency (%) |
|--|---------------|
| Too little time, forgetting to take medication | 52 |
| Stay outside the home | 46 |
| Change the habits | 45 |
| Depression | 27 |
| Patients decision interruption of therapy | 20 |
| Financial hardship and lack of drugs | 20 |
| Too much drugs | 19 |
| Anxiety before pathogens or cancer resistance | 19 |

Other reasons of non- compliance

| The reason | Frequency (%) |
|---|---------------|
| Unpleasant and strong side- effects | 18 |
| Fear before adverse drug reaction | 17 |
| Fear before disease reveal | 17 |
| Treatment constant reminder of patients illness | 16 |
| Dosage mistake | 14 |
| Lack of recovery | 13 |
| Wish to extension the treatment time | 10 |
| Patients opinion: „ The drugs do not treat” | 9 |



The reasons non-compliance

- Too little time, forgetting to take medication
- Stay outside the home
- Change the habits
- Fear before disease reveal
- Treatment constant reminder of patients illness
- Dosage mistake

you can remove by e.g. dosage
simplification



Improve compliance methods

- **reduction the frequency** of drug administration during the day
- **reduction the number of medicines** a patient has to take
- **extensive patient education and effective communication**

1996...



...2005



24/57

2006



EFV + TDF + FTC 1 tabl. QD


25/57



Methods of compliance measurement

 objective

 subjective



Objective methods of compliance measurement


- DOT (*Direct Observational Therapy*)
- Electronic monitoring (e.g. *Medical Event Monitoring System, MEMS*)
- Checking the drug number
- Measurement of drug levels in biological fluids (TDM- Therapeutic Drug Monitoring)
- Monitoring of realization of prescriptions
- Measurement of biological markers

Drugs boxes



MULTIPLE VIBRATION ALARM WATCH IMPROVES COMPLIANCE!





Subjective methods of compliance measurement

- patient self - report (interview, questionnaire, diary)



Extensive patient education

Informing about:

1. Advantages and disadvantages of treatment

2. Benefits of treatment

adjuvant setting when patients recognize that they may not need or benefit from further treatment

3. Mode of drug action



Effective communication

- to say do not mean to hear
- to hear do not mean to understand
- to understand do not mean to agree
- to agree do not mean to do
- to do something do not mean to continue

Conrad Lorenz, Nobel prize



Effective communication

remove the psychological barriers, doubts
and fears





Adherence

the extent to which a person's behavior coincides with medical or health advice



Case report


progression of invasive cervical
cancer in a victim who delayed her
treatment



Intimate partner violence (IPV)

psychological and emotional abuse,
controlling behaviors, threats,
physical and sexual abuse

IPV involves both abuse of power and
control of the victim



In the United States 25.5% of women have experienced IPV in their lifetime and 1.8% within the last 12 months



41-year-old Caucasian female

- diagnosed in early 1999 after colposcopic biopsy with high- grade cervical dysplasia (CIN-III)
- treatment options- a cone biopsy or loop electrosurgical excision procedure
- declined either procedure, despite extensive counseling



41-year-old Caucasian female

- 2001- excessive and irregular bleeding (CIN-III)
- by January 2002- cold knife cone procedure was performed (diagnosis- squamous cell carcinoma, stage IB1 cervical carcinoma)
- treatment options- radical hysterectomy with lymphadenectomy or radiation therapy
- declined either procedure, despite extensive counseling and explanation of seriousness of the pathological stage



41-year-old Caucasian female

- during the next 2 years she visited several gynecological oncologists
- despite confirmation of the diagnosis and attempts to convince her to accept treatment, the patients continued to decline intervention



41-year-old Caucasian female

- by February 2004- worsening midline abdominal pain and abundant vaginal bleeding (the patients required 3 units of paked red blood cell secondary to servere blood loss)
- gynecological exam- patient's cervix replaced by tumor (10 cm in diameter)
- pathological stage- IIB




41-year-old Caucasian female

- treatment with combined radiation therapy and chemotherapy was discussed with her in the presence of her partner
- during the discussion, **her partner** expressed disagreement with the treatment plan and stated that a number of physicians performed exams over the past 3 to 4 years and assured them that „**nothing was wrong**”, and „**the doctors made all the mistakes**”
- her partner demanded that she leave the hospital with him



41-year-old Caucasian female

- by April 2004- completed external radiation therapy by female radiation oncologist
- the pelvic examination showed near resolution of the tumor
- the patient refused weekly cisplatin chemotherapy and interstitial high-dose radiation with a male radiation oncologist
- the patient never returned for follow-up treatment



Factors influenced on non- compliance in the case of IPV

- psychosocial stress
- negative coping behaviors
- sexual assault
- sexually transmitted diseases (HPV)
- increased rates of smoking

IPV = independent cause for treatment delay
and increased risk of invasive cervical
cancer



A victim of IPV requires help from multidisciplinary team

- physician
- pharmacist
- social workers
- clinical psychologists
- psychiatrists



Non- compliance consequences

- missing opportunity to treatment response
- waste of financial resources
- false interpretation of the results of clinical trial as potentially unrealistic in the absence of compliance data




Cancer and its treatment can
be cause of patients suicide

especially in the group of head and
neck cancer patients





Risk factors for suicide in cancer patients

- advanced stage of diseases
 - poor prognosis
 - site of the cancer (oral, pharyngeal, laryngeal, lung, or diffuse disease)
 - pain
 - acute side effects of chemo- and radiotherapy
 - significant disfigurement or disability
 - confusion or delirium
 - hopelessness
- 



Acute radiotherapy side effects

● dry mouth

● change of taste

● fatigue

● poor appetite

● sore throat

● otitis

● skin injury


● hearing impairment






Recommendations regarding the management of head and neck cancer patients

Open communication, also about death and suicide

- patients perceive that the physician is working in their best interest and is doing all that is possible to alleviate emotional and physical pain
 - talking about suicide will not increase their risk but rather allows the patients to verbalize their concerns about death and dying, surgical fears and misconceptions
- 




Most commonly is drug compliance, but may also apply to e.g

- chronic wound care

- self directed physiotherapy exercises



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Thank you for your attention