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Endpoints and their relevance to older people:

Cancer and Palliative Care and work of EORTC

Ulrich Wedding Elderly Task Force EORTC, Brussels University of Jena, Germany

Ulrich Wedding Department of Palliative Care



Structure

- Decision making in elderly cancer patients
- Geriatric Assessment in elderly cancer patients
- Endpoints and Clincial trials
- Research strategy



Improvement in cancer care

All cancers combined (both sexes)*



Main task in the treatment of elderly cancer patients

less agressive – lost chance of cure, of prolongation of life, of symptome control

too aggressive – risk

of toxified natural course resulting in therapy associated mortality, morbiditity, and compromised quality of life

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Treatment decision: Medical treatment



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Toxicity of medical treatment

- Allogenetic bone marrow transplatation
 -> old patients aged 55-60+ years
- Induction chemotherapy, e.g. of acute leukemia
 -> old patients aged 60-70+ years
- Polychemotherapy
 - -> old patients aged 70+ years
- Monochemotherapy
- Monoclonal Antibodies
- IMIDs
- Hormontherapy



Aims of treatment

- <u>curative:</u>
 - curative itself
 - adjuvant in addition to other treatment
 - = prolongation of survival without the disease
- <u>non-curative / palliative:</u>
 - prolongation of survival with the disease
 - prolongation of time without symptoms / deterioration of HRQoL
 - improvement of symptoms / HRQoL
 - dying in dignity



Assessment in Oncology and Geriatrics

Oncology	Geriatrics
Age	functional status (e.g. ADL, iADL, aADL)
Performance Status, e.g. Karnofsky-PS or ECOG-PS	depression (e.g. Geriatric Depression Scale)
	dementia (e.g. Mini-Mental-Status-Examination)
	mobility (e.g. Tinetti, Timed Up and Go-Test)
	nutrition (e.g. Mini-Nutritional Assessment)
	social situation (e.g. F-Sozu)
	Comorbidities and polyparmacy (e.g. Charlson-Score)



Current evidence to perform a CGA* in oncological patients

- detects changes missed in routine
- changes are of prognostic importance regarding survival, toxicity and HRQoL
- knowledge of changes can result in changed treatment recommendations
- data from RCTs that care based on CGA results improve outcome are missing

*comprehensive geriatric assessment





Recommendations



Position Paper

EORTC elderly task force position paper: Approach to the older cancer patient

A.G. Pallis ^{a,}, C. Fortpied ^b, U. Wedding ^c, M.C. Van Nes ^d, B. Penninckx ^a, A. Ring ^e, D. Lacombe ^a, S. Monfardini ^f, P. Scalliet ^g, H. Wildiers ^h



Eur J Cancer 2010 Apr;46(6):1019-25

Review

Questionnaires and instruments for a multidimensional assessment of the older cancer patient: What clinicians need to know?

A.G. Pallis ^{a,*}, U. Wedding ^{a,b}, D. Lacombe ^a, P. Soubeyran ^{a,c}, H. Wildiers ^{a,d}

Eur J Cancer 2010 Jun;46(9):1502-13



Bottle necks for clinical trial development in elderly

- Medical community bottlenecks:
 - poor collaboration with geriatric medicine
- Clinical trial methodology issues
 - no upper age limit vs. specific trials
 - definition of appropriate end-points
 - integration of geriatric assessment
 - inclusion of biomarkers
- Infrastructures limitations
 - local national international
- Inadequate regulatory framework
 ICH E7, EFGCP, ...
- Industry limited interest
 - like to have homogeneous study populations vs. hetergeneous ageing population



Endpoints (1)

Classical endpoints are inadequate
 Overall survival, progression-free survival, ...

• Overall treatment utility (Seymour et al. Lancet 2011)

- good OTU: no clinical or radiological evidence of disease progression, and no major negative treatment effects in terms of toxicity or patient acceptability
- Intermediate OTU: either clinical deterioration but no negative treatment effect, or a significant negative treatment effect but no clinical deterioration
- poor OTU: both clinical deterioration and a major negative treatment effect, or death

• Therapeutic success (Ardizzoni et al. JCO 2005)

combination of activity, toxicity and compliance



Endpoints (2)

 Alternative endpoints: to avoid discomfort related to/ caused by cancer progression AND treatment

Health Related Quality of Life (HRQoL)

- For older patients: anti-cancer treatment is not just how much additional time they can gain, but how valuable is that time
- How to measure/quantify HRQoL optimally? Which cut-offs?

Quality-Adjusted Survival: Q-TWIST approach

- Survival time in 3 consecutive health states (time with toxicity from treatment; time without symptoms of disease or toxicity; time from progression/relapse to death) and utility weights assigned to each state
- How to determine/quantify the weight factor?
- Preservation of functional capacity/independence
 - Maintenance of function and independence should be one of the major principles of cancer management.
 - Definition of functional dependence, optimal cut-off?
 - Example: GERICO: decrease of 2 points in IADL



Trial design (1)

'Treatment regimen' trials

- CALGB 'Muss' trial: therapy A vs drug B
- Test 'new' drug in 'old' population; e.g. bevacizumab
 - Big market for industry!
 - Industry afraid of negative results

• 'Strategic' trials:

- No therapy versus therapy (prostate cancer wait and see ...)
- Adjuvant chemotherapy versus no chemotherapy (CASA)
- Need for observational studies!
 - Much less selection bias
 - Need for uniform evaluation of elderly!



Trial design (2)

Specific trials for older patients or...

 Design difficulties: elderly patients display much greater heterogeneity compared to younger patients
 Jatoi et al. J Clin Oncol 2005

... clinical trials with no upper age limit?
 Selection bias only fit old patients are enrolled

 Optimum: Combination of both and inclusion in a prospective register trials including a geriatric assessment

Selection bias can be demonstrated, ...



- 1. Obligatory reporting of age related subgroup analysis including number of patients, efficacy and toxicity data and, if possible, pooled age analysis
- 2. Obligatory post marketing studies in elderly patients, with age specific trial design if applicable
- 3. Obligatory inclusion of a minimum data set for geriatric patients in registration trials and postmarketing trials.



Recommendations for clinical trials

original article

Annals of Oncology 22: 1922–1926, 2011 doi:10.1093/annonc/mdq687 Published online 25 January 2011

EORTC workshop on clinical trial methodology in older individuals with a diagnosis of solid tumors

A. G. Pallis¹*, A. Ring², C. Fortpied³, B. Penninckx⁴, M. C. Van Nes⁵, U. Wedding⁶, G. vonMinckwitz⁷, C. D. Johnson⁸, L. Wyld⁹, A. Timmer-Bonte¹⁰, F. Bonnetain¹¹, L. Repetto¹², M. Aapro¹³, A. Luciani¹⁴ & H. Wildiers¹⁵ on behalf of the European Organisation for Research and Treatment of Cancer Elderly Task Force

- G8 Questions (Bellera et al. Ann Oncol 2012)
- IADL Questions (Lawton et al. Gerontolist 1969)
- Charlson Comorbidity Scale (Charlson et al. J Clin Epidemiol 1987)
- Social situation

Within a registry: Fitness of old cancer patients from gut feeling to assessment based decision making



ulrich.wedding@med.uni-jena.de



Universitätsklinikum Jena