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Prescriptions of analgesics during complete disease trajectories in patients who are diagnosed with and die from cancer within the five-year period 2005–2009

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ORIGINAL ARTICLE

Prescriptions of analgesics during complete disease trajectories in patients who are diagnosed with and die from cancer within the five-year period 2005–2009

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Eur J Pain. 2017 Mar;21(3):530-540.

Background

- Guidelines for opioid use in cancer exist
- Little data on how opioids are actually prescribed and used

Research questions

1. When was the first prescription of analgesics in relation to date of diagnosis?
2. At which step of the WHO analgesic ladder was analgesic therapy initiated?
3. What proportion of patients starting at Step I proceeded to Step II and what proportion bypassed Step II and went directly to Step III?

Methods (1) – Data sources

- Likage of data from complete national registries:
 - Cancer Registry of Norway
 - Norwegian Prescription Database
 - Cause of Death Registry of Norway
- Norwegian prescription database
 - Dispensed prescriptions only
 - Outpatients only (i.e. no data on hospitals and nursing homes)

Methods (2) – Study population

- All Norwegians who were diagnosed with cancer between January 1st 2005 and December 31st 2009 and who died from cancer before December 31st 2009 were eligible for inclusion.
- Stratified according to time from diagnosis to death

Results (1) – Study population

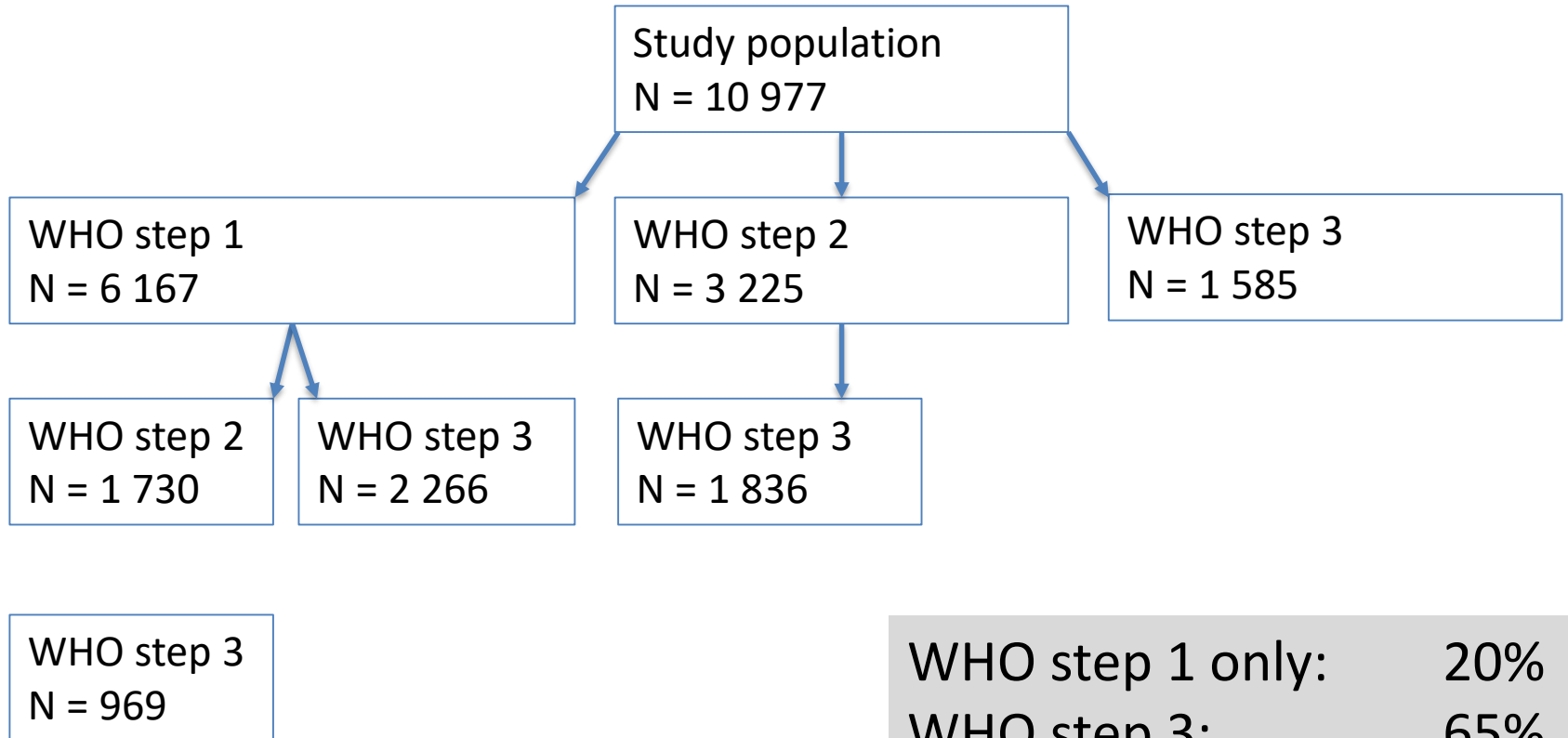
Table 1 Medical and socio-demographic characteristics of the study population stratified according to time from cancer diagnosis to death.

	<6 months	6 months to 2 years	2–5 years
<i>N</i> (%)	3576 (33%)	5610 (51%)	1791 (14%)
% Females	42.8	43.3	42.2
Age at death, mean (SD)/median	71.9 (11.7)/74	68.8 (12.6)/74	69.9 (13.0)/70

Results (2) – Time from diagnosis and time to death

	<6 months (N = 3576)	6 months to 2 years (N = 5610)	2–5 years (N = 1791)
Mean (SD)/median time from diagnosis to first analgesic prescription, days	23 (36)/0	103 (131)/69	284 (339)/120
Mean (SD)/median time from diagnosis to first opioid prescription, days	37 (36)/31	170 (162)/122	481 (401)/457
Mean (SD)/median time from first analgesic prescription to death, days	61 (43)/61	280 (165)/245	749 (382)/762
Mean (SD)/median time from first opioid prescription to death, days	52 (41)/31	216 (164)/183	554 (402)/554

Results (3) – WHO steps



WHO step 1 only:	20%
WHO step 3:	65%

Results (4) – Formulations at first dispensed prescription

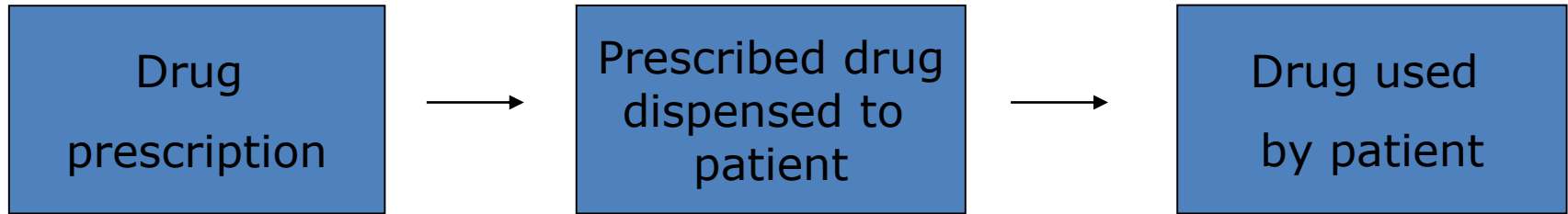
WHO step III, *N* (%)

<i>N</i> (% of step III receivers) without non-opioid analgesic	364 (51.7)
<i>N</i> (% of step III receivers) with normal release opioid only	129 (18.3)
<i>N</i> (% of step III receivers) with slow release opioid only	143 (20.3)
<i>N</i> (% of step III receivers) with slow and normal release opio	433 (61.4)

Methodological considerations (1)

- The inclusion criteria allowed for a maximum duration of follow-up of five years.
- Due to the inclusion criteria patients with shorter disease trajectories are overrepresented in the study population.
- In patients spending the last weeks/months in hospitals and nursing homes, the study covers only the first part of the disease trajectory

Methodological considerations (2)



Conclusion

Clinicians seem to individually tailor analgesic treatment instead of applying the stepwise approach in the WHO analgesic ladder.