Describing Deprescribing – when are we stopping medications in palliative care?

Background

Deprescribing is the process of withdrawal of medication with the goal of improving patient care.

Research currently is in the context of polypharmacy and geriatrics, however despite its ubiquity within palliative care there is a paucity of research in this context. Anecdotally, deprescribing is performed adhoc and is seen as part of reducing symptom burden in palliative/end of life patients but there appears no clear quantitative or qualitative data on rational and benefit.

Aim

The purpose of this project is two fold:

1) Quantitative data on palliative care deprescribing
2) Education and building a platform to facilitate deprescribing

Methodology

Prospectively data was collected from 2 hospice sites over 3 month period (13/3/18-30/6/18)

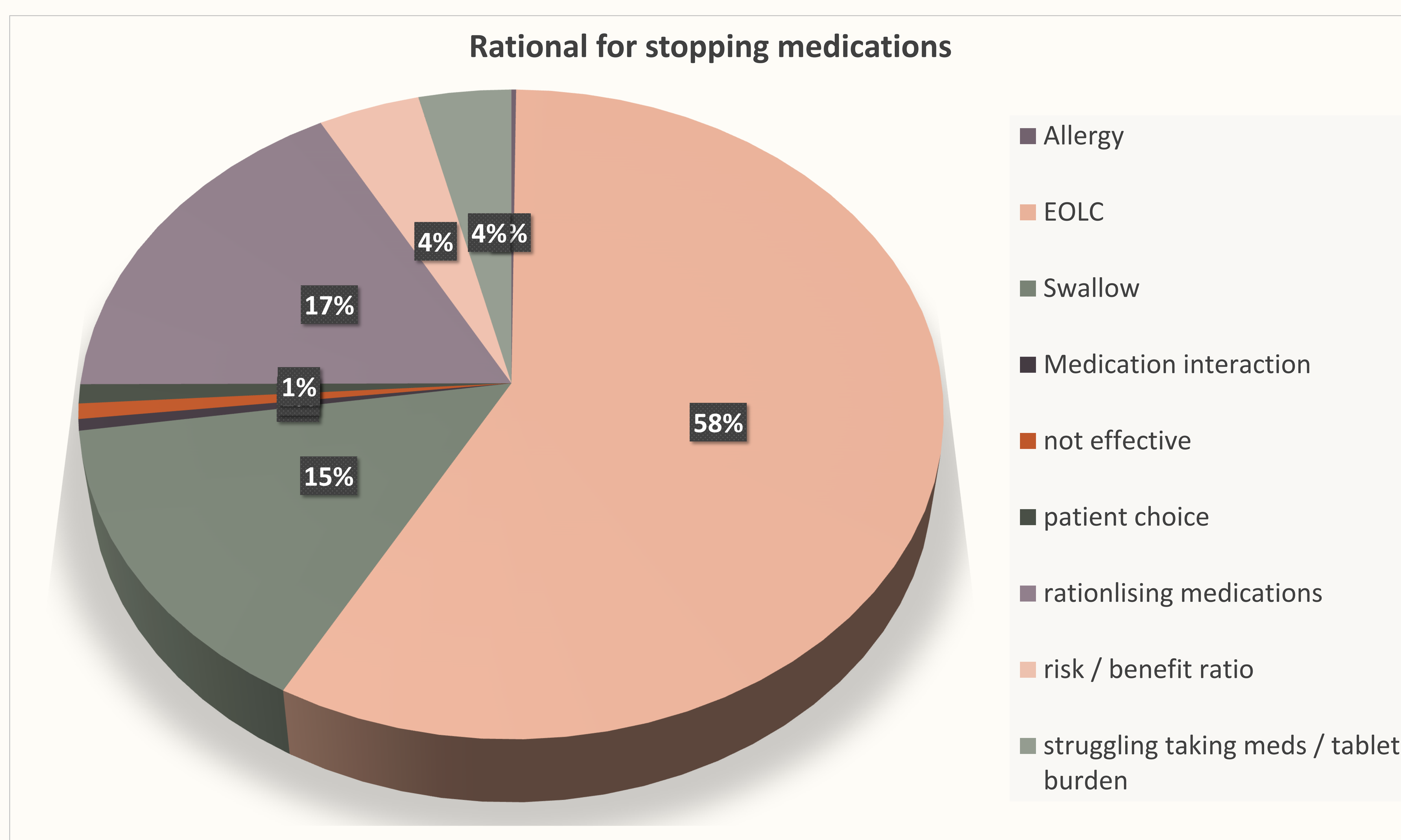
Medication kardex's of palliative in-patients had a proforma attached. This was completed prospectively and collected the medications stopped, date and rational. The patient was followed until death. Some community patients were also enrolled. This prospectively gained a timeline of medication stops respective to date of death and rationale.

Results

Data was collected from 13/3/18 to 30/06/18 collating 647 medication stops of 208 differing medications of 112 different palliative patients.

These were placed into 16 medication groups. These groups totaled 263 medication stops of 61 differing medications. There was an exclusion criteria of medications which could have been involved in symptom control and arguably confound the picture of true deprescribing, hence the numerical difference.

Rationale for deprescribing



58% (361) medication stops were due to approaching end-of-life. 15% (93) due to swallowing difficulties, 17% (109) due to 'rationalising' medications.

Quantitatively when are we deprescribing?

The data on each individual medication and overall showed a skewed distribution towards a shorter time period throughout. For example with beta blockers below there showed a high peak at 1 day but a long arm spreading to 26 days. This meant the 'mean' and 'standard deviation' are not appropriate for this non-normal distribution, hence the use of median and quartiles.

	Median days stopped before death	Quartile 1	Quartile 3	IQR	Total number of times stopped	Number of different medications	Medications included
Statins	5	1	9	8	11	3	Pravastatin/simvastatin/atorvastatin
Betablockers	2	1	5	4	27	4	Bisoprolol/atenolol/propanolol/sotalol
ACEI &ARB	5	2	14	12	13	6	Felodipine/Enalapril/lisinopril/perindopril/ramipril/candesartan
Antiplatelets	9	4	13	9	9	2	aspirin/clopidogrel
Antiarrythmics	2	1	8.75	7.75	8	2	Digoxin/amiodarone
Warfarin and NOACS	5	1	24.75	23.75	8	3	Warfarin/apixiban/rivaroxiban
Iron Supplements	3	2	6	4	9	2	ferrous fumarate/ ferrous sulphate/
Diuretics	4	1.25	19	17.75	24	5	bumetinide/furosemide/indapamide/spironolocatone/BDZ
Oral Diabetic tablet	4	3.25	8	4.75	10	2	Gliclazide/metformin
PPI & H2	3	1	5.5	4.5	61	5	esomeprazole/pantoprazole/Omeprazole/lansoprazole/ranitadine
Parkinsons oral meds	3	2	4	2	8	5	amantadine/Ropinirole/rasagline/sinemet/co-carldopa
Prostatism	2	1	4.25	3.25	9	2	Tamsulosin/finasteride
TCA/Mirtazapine/ Duloxetine	6	4	13	9	25	5	Duloxetine/Mirtazapine/venlafaxine/carbamezapine/amitriptyline
Hormone Oncology	5	3	18.25	15.25	10	5	anastrazole/bicalutamide/doxazosin/finasteride/letrozole
SSRI	5	2	18	16	17	4	citalopram/paroxetine/sertraline/fluoxetine
CCB	5	2.25	8.5	6.25	14	6	Amlodpiine/felodipine/diltiazem/lacidipine/nifedipine/tildiem LA
All data grouped	4	1	9	8	263	61	
All data overall	4	1	9	8	647	208	

The median number of days of palliative care deprescribing any medication before death is 4, with 25% (quartile 1) being 1 day and 75% (quartile 3) being 9 days before death.

For example groups were identified and individually measured, including statins (median 5), Beta-blockers (median 2), ACEi (median 5), anti-platelets (median 9), Warfarin/NOACS (median 5).

Conclusion

By outlining deprescribing current practice in palliative care we demonstrate the short timespan between deprescribing and death for medications arguably of minimal patient benefit at this point of life.

The rationale for stopping correlates with this postulation, outlining we are stopping the vast majority of medications due to the dying phase rather than pre-emptively.

Arguably, gathering data alone might inform practice but does not in itself bring about change. We suggest therefore that this study should therefore be seen as a positive step into identifying the need for a change in current practice, leading to future studies to outline how change is achieved and measured.

We fully appreciate the barriers to deprescribing early and hope in the future to try and give a robust evidence based structure to allow clinicians to deprescribe with confidence.

Limitations

Limitations of this study include:

1) the aspersion -this population of patients is not representative of the wider primary care population and that palliative care are seeing complex patients in which deprescribing is going to occur later. We would suggest there is no evidence to support this view and this population is wholly representative, but even if the case, it acts as a precipitant to inform palliative care physicians in the community of the onus to trial deprescribing earlier.
2) The deprescribing occurred prior to being known to the palliative care team. This is of course possible, either through the GP or hospital doctors. This project ran for 3 months and followed patients from community to hospice when referred into palliative care. 96% of patients had at least one medication stopped throughout all the referrals. Anecdotally, we have no reason to suppose the deprescribing is occurring before referral to palliative care and have a strong suspicion it is not, although further research is required.

"We are stopping preventative medications a median of four days before death once known to hospice palliative care."

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