To the Listserve of the American Clinicians Academy on Medical Aid in Dying.

August, 21, 2021

All,

For a code to the acronyms used, see the bottom of this post.

You might remember that on June 22, 2021, the Academy changed its aid-in-dying pharmacology recommendation to no longer using separate digoxin (D-DMAPh) and to have only one protocol with the digoxin mixed in with the other medications (DDMAPh).

For details, see https://tinyurl.com/4fxwr7bb and https://www.acamaid.org/pharmacologyinfoupdates/

We have continued to gather data on DDMAPH, with some interesting findings: (see graphs below)

- Separate digoxin has previously had an advantage in time to death over digoxin given with the other medications. That advantage has now disappeared with the added phenobarbital formulas, with times to death 1.06 and 1.08 respectively.
- With an N=112, the speed and reliability of DDMAPH are confirmed.
- 14 of the 112 reported deaths were by rectal-med administration. Interestingly, rectal-med deaths with prior formulations ran about 20% longer than oral-med deaths. This has now essentially disappeared, with the average time to death by rectal meds of 1.2 hours.
- Strangely, there were three severe outliers, which we did not include in the data:
  - Two deaths occurred at 1 minute, literally while still drinking the medications. I have no non-spiritual explanation for this, other than the deaths did not occur from the aid-in-dying medications (one death was sudden while the patient was still awake).
  - One death was >19 hours, in a patient with severe but mysterious gut dysfunction (surgical intervention did not establish a cause of the gut dysfunction). The lesson from this, of course, is that it doesn't matter what medications you put into a dysfunctional gut, they will be poorly absorbed.

![Graph showing time to death data]

N=112
TTD = time to death, average 1.1 hours

DDMAPh
N=33
TTD: 1.06-hour average

DDMAPh
N=79
TTD 1.08 hour average
The moral of the story: DDMAPh continues to be quick, reliable, and safe.

Here’s a key, for those who are appropriately lost in the acronyms:

**DDMP2**: Digoxin 50 mg, Diazepam 1 gm, Morphine 15 gm, Propranolol 2 gm.

**D-DMP2**: As above, but digoxin is given separately, 30 minutes before the other medications.

**DDMA**: Digoxin 100 mg, Diazepam 1 gm, Morphine 15 gm, Amitriptyline 8 gm.

**D-DMA**: As above, but digoxin is given separately, 30 minutes before the other medications.

**DDMAPh**: Digoxin 100 mg, Diazepam 1 gm, Morphine 15 gm, Amitriptyline 8 gm, Phenobarbital 5 gm.

**D-DMAPh**: As above, but digoxin is given separately, 30 minutes before the other medications.

Thank you!! for this data to clinicians in California, Oregon, Washington, New Mexico, New Jersey, and Colorado. Without this data, continued improvements in aid-in-dying pharmacology would not be possible. We encourage clinicians to report their data at https://www.acamaid.org/datareport/.

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Donations to continue our essential work are gratefully accepted at https://www.acamaid.org/donateonline/