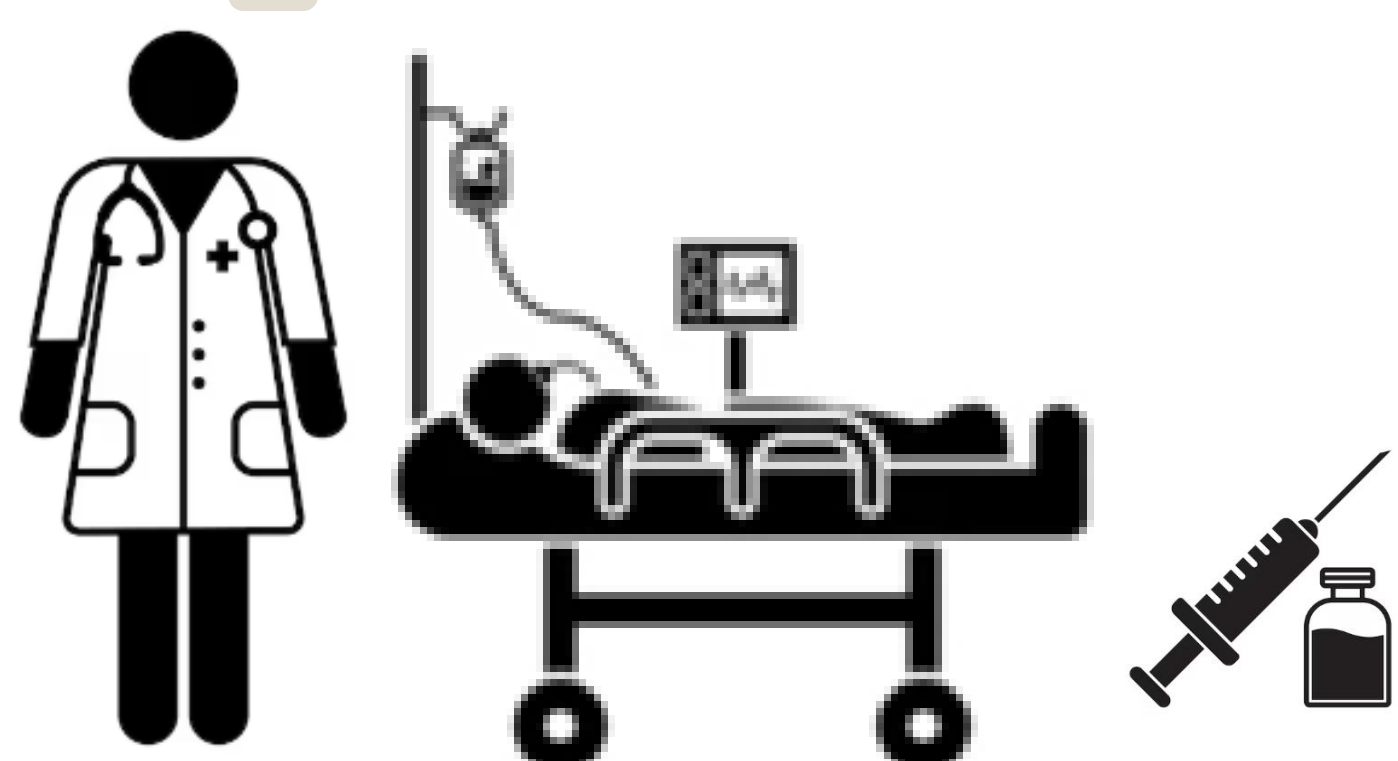


Quinidine: when old becomes new again

M. Cumin¹, A. Feka¹, N. Perrottet^{1,2,3}, F. Sadeghipour^{1,2,3}

¹ Pharmacy Department, Lausanne University Hospital, Switzerland, ² School of Pharmaceutical Sciences, University of Geneva, Switzerland, ³ Institute of Pharmaceutical Sciences of Western Switzerland, University of Geneva, University of Lausanne, Switzerland

We urgently need some IV quinidine...



Quinidine for who?

- Patient in intensive care unit (ICU)
- Other antiarrhythmic drugs failed

Quinidine for what?

- Life-threatening ventricular arrhythmia (VA)
- Still recommended in recent European¹ and American² guidelines

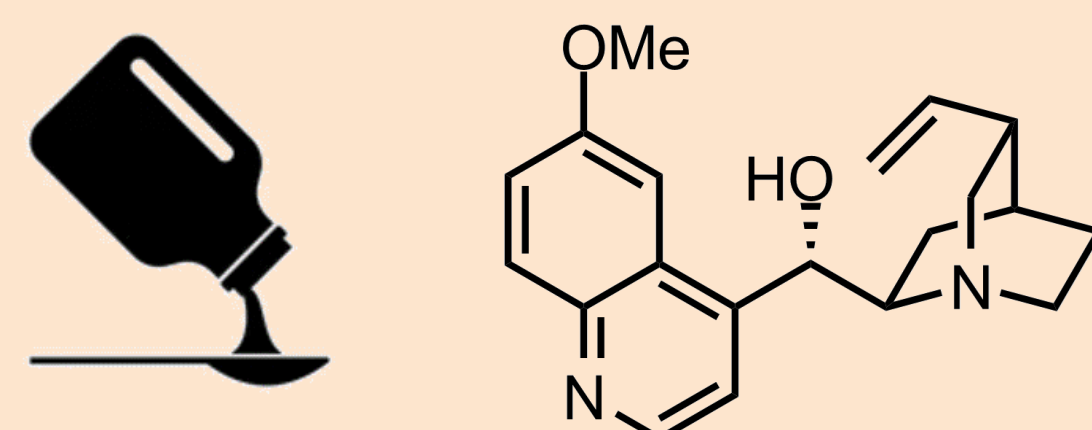
How to administer Quinidine?

- 300 mg 3x/day and titrate the dose
- Switch to Serecor® after extubation

What about hydroquinidine (Serecor®)?

- Extended-release form → It cannot be crushed
- Unsuitable for enteral feeding tubes

Intubated ICU patients + enteral feeding tube = **Quinidine syrup** manufactured by our hospital pharmacy



Why quinidine?

- Old class Ia drug
- Regulate high frequency arrhythmia by binding to Na⁺ and K⁺ channels
- The IV form is needed in extreme VA cases in ICU patients

Quinidine from where?

- Worldwide unavailable according to several articles

Can the pharmacy department provide a better alternative for these patients?

Literature research

- Indications: VA
- Dosage: 900 - 2000 mg daily
- Guidelines^{1,2}: still recommended
- Salt: sulfate for oral use vs gluconate for IV use

Availability

- IV form: only in Israel → difficult import
- Gluconate salt (IV use) unavailable
- Oral tablets: USA
- Sulfate salt (oral use): India and Belgium

Feasibility

- Oral form: sulfate salt powder for syrup 10 mg/ml
- Stability: 60 days at room temp
- Syrup: compatible with enteral feeding tube administration

Analysis

- Raw material from India → compliant
- Final quality control analysis not needed

Clinical pharmacy unit

Pharmaceutical logistic unit

Production unit

Quality control unit

References:

[1] Zeppenfeld et al, European Heart Journal (2022) 43, 3997–4126

[2] Al-Khatib et al, Heart Rhythm (2018), 15: 10