INLEIDING

‘Klassieke’ OAC

DOACs

INLEIDING

Doeltreffendheid

Bloedingsrisico

CORRECT DOSING

Indicaties | Pradaxa® dabigatran etexilate | Xarelto® rivaroxaban | Lixiana® edoxaban | Eliquis® apixaban
--- | --- | --- | --- | ---
VTE prophylaxis in joint replacement | R 220 mg/d (2 caps 110 mg 1 x/d) | 150 mg/d (2 caps 75 mg 1 x/d) | | |
if Cr Cl 30-50 ml/min, if ≥75 y, if verapamil, amiodarone or quinidine | THR: 28-35d | TKA: 10d |
| | R 10 mg/d (1 tab 10 mg 1x/d) | | | |
total knee arthroplasty | THR: 5w | | |
| | R 5 mg/d (1 tab 2,5 mg 2x/d) | | | |
non-valvular atrial fibrillation | THR: 32-38d | TKA: 10d |
VTE treatment and secondary prevention | R | | | |
| | Tt: LMWH therapeutic dose 5 d | | | |
| | P2: 300 mg/d (1 caps 150 mg 2x/d) | | | |
| | OR 220 mg/d (1 caps 110 mg 2x/d) | | | |
if >80 years or high bleeding risk | Min 3 months |
| | R | | | |
non-valvular atrial fibrillation | Tt: 30 mg/d (1 tab 15 mg 2x/d) | | | |
| | 21 d (1tab 15 mg 2x/d) | 15 mg/d (1 tab 15 mg 1x/d) | | |
if Cr Cl CG 15-49 ml/min | Min 3 months , max 12 months |
| | Tt: LMWH therapeutic dose 5 d | | | |
| | P2: 60 mg/d (1 tab 60 mg 1x/d) | | | |
| | OR 30 mg/d (1 tab 30 mg 1x/d) | | | |
if Cr Cl CG 15-49 ml/min or ≤ 60 kg or cyclosporin/ erythromycin/ ketoconazole | | | | |
Acute coronary syndrome | NR | 5 mg/d (1 tab 2,5 mg 2x/d) Max 24 months |
| | | | | |
CORRECT DOSING

INCORRECT DOSING

Problems with DOAC prescriptions:

- Incorrect dosing according to indication
- Incorrect dosing according to renal function
- Incorrect dosing according to age
- Incorrect dosing according to weight
- Incorrect dosing according to co-medication
- Incorrect dosing according to CHA\textsubscript{2}\text{-VASc} & HAS-BLED score
- ...

Which DOAC is the most inappropriately prescribed?

A. Apixaban
B. Dabigatran
C. Edoxaban
D. Rivaroxaban

INCORRECT DOSING

Prevalence of inappropriately prescribed DOACs:

Which statement is correct?

A. underdosing > overdosing
B. underdosing < overdosing
C. underdosing = overdosing

Which DOAC is the most inappropriately prescribed?
Clinical case

John, 78 years and living alone at home, was recently hospitalized for a transient ischemic attack.

- **Medical history:**
  - Atrial fibrillation
  - Hypertension
  - Diabetes
  - Prostate adenocarcinoma

- **Lab parameters:**
  - Hb: 13.1 g/dL
  - INR: 1.3
  - Glucose: 125 mg/dL
  - Serum creatinine: 0.99 mg/dL
  - CrCl Cockcroft & Gault: 64 mL/min
  - Weight: 80 kg

He refused to take a VKA and has been prescribed dabigatran (Pradaxa®) for stroke prevention in atrial fibrillation. After 3 days he presents with a severe epistaxis.

**CASUISTIEK**

Clinical case

When reviewing his medication John mentions that he sometimes has troubles to take his drugs.

<table>
<thead>
<tr>
<th>Medication</th>
<th>8 AM</th>
<th>12 AM</th>
<th>4 PM</th>
<th>8 PM</th>
<th>Bed time</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pradaxa® 110 mg</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>He takes 2 capsules of Pradaxa® once a day at noon because of a dyspepsia.</td>
</tr>
<tr>
<td>Bisoprolol 2,5 mg</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gliclazide 60 mg</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Olmesartan/HCT 20/12,5 mg</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Furosemide 40 mg</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Use the tablet Furosemide based on a systolic blood pressure &gt; 150/160 mmHg.</td>
</tr>
<tr>
<td>Simvastatine 20 mg</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piroxicam 20 mg</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>If necessary</td>
</tr>
</tbody>
</table>

What about the dosage of Pradaxa®?

- **A. OK**
- **B. Too low**
- **C. Too high**
- **D. No idea**
What about the posology?

<table>
<thead>
<tr>
<th>Medication</th>
<th>8 AM</th>
<th>12 PM</th>
<th>4 PM</th>
<th>8 PM</th>
<th>Bed time</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pradaxa® 100 mg</td>
<td>33%</td>
<td>33%</td>
<td>33%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- A. Correct
- B. Incorrect
- C. No idea

Which alternative could be proposed?

- A. Yes
- B. No
- C. No idea

What can you say about the INR in the present case?

- A. Nothing, INR is not influenced by dabigatran
- B. Nothing, although INR is influenced by dabigatran there is no correlation with between INR and DOAC effect
- C. INR reflects a subtherapeutic level of dabigatran
- D. INR reflects a poor compliance

What can be said about the combination of a DOAC with aspirin?

- A. Only low doses of Aspirin® (≤ 160 mg) are allowed in combination with a DOAC
- B. This combination is allowed in case of an AF patient suffering of migraine
- C. This combination is allowed in case of an AF patient treated for pericarditis
- D. None of the above is correct
CONCLUSIONS

• Several real-life studies indicate suboptimal quality of DOAC prescribing
• Inappropriate use: ↑ thrombotic or hemorrhagic risk
• Main problems associated with prescribing DOACs:
  * inappropriate choice
  * inappropriate dose adjustments
  * modalities of administration
  * adherence


• Possible solutions: * clinical validation of DOAC prescriptions
  * strengthening education for health care professionals

FOR YOUR ATTENTION & ACTIVE PARTICIPATION!