



UNIVERSITÄTS
KLINIKUM
HEIDELBERG

„Diese Literatur muss man kennen“

Dr. med. Firas Yousef

20.01.2024



Interessenkonflikte

- Hiermit erkläre ich, Firas Yousef, dass zu den Inhalten dieser Veranstaltung meinerseits kein Interessenkonflikt besteht.

Quelle:

Einsatz - 06:45 Uhr



Einsatz - 06:45 Uhr



- Nico 23 M
- A-C blande
- D GCS 3
- BZ/Temp. norm.

Einsatz - 06:45 Uhr



- Nico 23 M
- A-C blande
- D GCS 3
- BZ/Temp. norm.

👉 Tubus

👉 Gastro-Intensiv

„NICO“

JAMA | **Original Investigation** | **CARING FOR THE CRITICALLY ILL PATIENT**

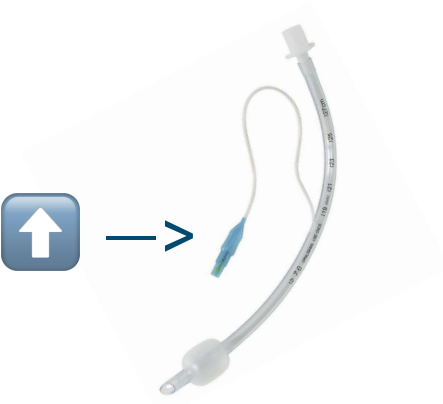
Effect of Noninvasive Airway Management of Comatose Patients With Acute Poisoning A Randomized Clinical Trial

Yonathan Freund, MD, PhD; Damien Viglino, MD, PhD; Marine Cachanado, MSc; Clémentine Cassard, MD; Emmanuel Montassier, MD, PhD; Bénédicte Douay, MD; Jérémy Guenezan, MD, PhD; Pierrick Le Borgne, MD; Youri Yordanov, MD, PhD; Armelle Severin, MD; Mélanie Roussel, MD; Matthieu Daniel, MD; Adrien Marteau, MD; Nicolas Peschanski, MD, PhD; Dorian Teissandier, MD; Richard Macrez, MD, PhD; Julia Morere, MD, PhD; Tahar Chouihed, MD, PhD; Damien Roux, MD, PhD; Frédéric Adnet, MD, PhD; Ben Bloom, MD; Anthony Chauvin, MD, PhD; Tabassome Simon, MD, PhD

Hintergrund

- GCS seit 1974

- Vigilanz  → Aspirationsrisiko  →



- 🤔 wirklich notwendig?

- **Aspirationsrisiko** > Intubations+VAP-Risiko?

Studien-Design

POPULATION



140 Men 85 Women

Comatose patients with
suspected acute poisoning and
a Glasgow Coma Scale score <9

Mean age: 33 years

LOCATIONS

21
Sites
in France



Freund Y, Viglino D, Cachanado M, et al. Effect of noninvasive airway management of comatose patients with acute poisoning: a randomized clinical trial. *JAMA*. Published November 29, 2023. doi:10.1001/jama.2023.24391

Studien-Design

POPULATION



140 Men 85 Women

Comatose patients with suspected acute poisoning and a Glasgow Coma Scale score <9

Mean age: 33 years

LOCATIONS

21
Sites
in France



INTERVENTION



237 Patients randomized
225 Patients analyzed

119

Restricted intubation

Conservative airway strategy of intubation withholding

118

Routine practice

The decision of intubation was left to the physicians' discretion

PRIMARY OUTCOME

Composite end point of in-hospital death, length of ICU stay, and length of hospital stay

Freund Y, Viglino D, Cachanado M, et al. Effect of noninvasive airway management of comatose patients with acute poisoning: a randomized clinical trial. *JAMA*. Published November 29, 2023. doi:10.1001/jama.2023.24391

Besonderheiten

- **✗ Ausschluss bei:**
 - > BB, CCB, ACEI, verfügbare-Antidote (Opiate/Benzos)
 - > schwanger/inhaftiert

Besonderheiten

- **✗ Ausschluss bei:**

- > BB, CCB, ACEI, verfügbare-Antidote (Opiate/Benzos)
- > schwanger/inhaftiert

- **ITN-Kriterien:**



- > KA
- > resp. Versagen (= SpO₂ <90% trotz NB)
- > Erbrechen
- > „Schock“ (= RR_{sys.} <90 mmHg trotz 1l Kristalloide)

Basis-Charakteristika I

Table 1. Characteristics of the Patients at Baseline in the NICO Trial

Characteristic	No. (%)	
	Restricted intubation (n = 116)	Control (n = 109)
Sex		
Female	46 (39.7)	39 (35.8)
Male	70 (60.3)	70 (64.2)
Age, median (IQR), y	33 (25-49)	34 (26-49)
Site of inclusion		
Emergency department	73 (62.9)	66 (60.6)
Prehospital	43 (37.1)	42 (38.5)
Intensive care unit	0	1 (0.9)
Heart rate, bpm	85 (18) [n = 114]	85 (20) [n = 107]
Heart rate >100	24 (21.1)	20 (18.7)
Blood pressure, mm Hg	n = 115	n = 106
Systolic, mean (SD)	113.6 (14.8)	117.9 (18.9)
Systolic ≤100	21 (18.3)	18 (17.0)
Diastolic, mean (SD)	70.3 (13.3)	70.6 (14.2) [n = 107]
Respiratory rate, mean (SD), breaths per min	17.2 (4.3) [n = 73]	16.8 (4.4) [n = 72]
Respiratory rate ≤12	13 (17.8)	10 (13.9)
Peripheral oxygen saturation, median (IQR), %	97 (95-99) [n = 114]	97(95-100) [n = 107]
Peripheral oxygen saturation <95%	17 (14.9)	17 (15.9)
Median Glasgow Coma Scale score, median (IQR)	6 (3-7)	6 (3-7)
Glasgow coma scale score = 3	38 (33)	28 (23)
Estimated body mass index ^a	25 (5) [n = 98]	24 (4) [n = 102]

Quelle: Freund Y et al., JAMA 2023

Basis-Charakteristika II

Table 1. Characteristics of the Patients at Baseline in the NICO Trial

Characteristic	No. (%)	
	Restricted intubation (n = 116)	Control (n = 109)
Toxin ^b		
Alcohol	79 (68.1)	71 (65.1)
Benzodiazepines	45 (38.8)	44 (40.4)
Neuroleptic	25 (19.0)	31 (28.4)
GHB/GBL	14 (12.1)	11 (10.1)
Crack/cocaine	13 (11.2)	6 (5.5)
Opioid/heroine	11 (9.5)	13 (11.9)
Amphetamines	9 (7.8)	11 (10.1)
Cannabinoid	9 (7.8)	6 (5.5)
Selective serotonin reuptake inhibitor	6 (5.2)	9 (8.3)
Tricyclic antidepressant	6 (5.2)	9 (8.3)
Paracetamol	5 (4.3)	4 (3.7)
Other	9 (7.8)	11 (10.1)
Intubation	19 (16.4)	63 (57.8)

Abbreviations: bpm, beats per minute; GHB, γ -hydroxybutyric acid; GBL, γ -butyrolactone; NICO, Non-invasive Airway Management of Comatose Poisoned Emergency Patients.

^a Calculated as weight in kilograms divided by height in meters squared.

^b Toxins involved were either suspected, reported by the patient or a relative, or proven by biological analysis. The sum of percentages exceeds 100% because several toxins may be involved.

Quelle: Freund Y et al., JAMA 2023

Studien-Design

POPULATION



140 Men 85 Women

Comatose patients with suspected acute poisoning and a Glasgow Coma Scale score <9

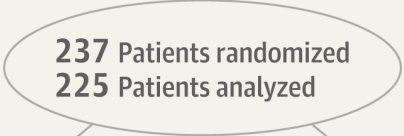
Mean age: 33 years

LOCATIONS

21 Sites in France



INTERVENTION



Restricted intubation

Conservative airway strategy of intubation withholding

Routine practice

The decision of intubation was left to the physicians' discretion

PRIMARY OUTCOME

Composite end point of in-hospital death, length of ICU stay, and length of hospital stay

FINDINGS

Composite end point

	Restricted intubation	Routine practice
In-hospital deaths	0 patients	0 patients
ICU length of stay	0 hours (IQR, 0 to 18.5)	24.0 hours (IQR, 0 to 57.0)
Hospital length of stay	21.5 hours (IQR, 10.5 to 44.5)	37.0 hours (IQR, 16.0 to 79.0)

Withholding intubation was associated with a significant clinical benefit:

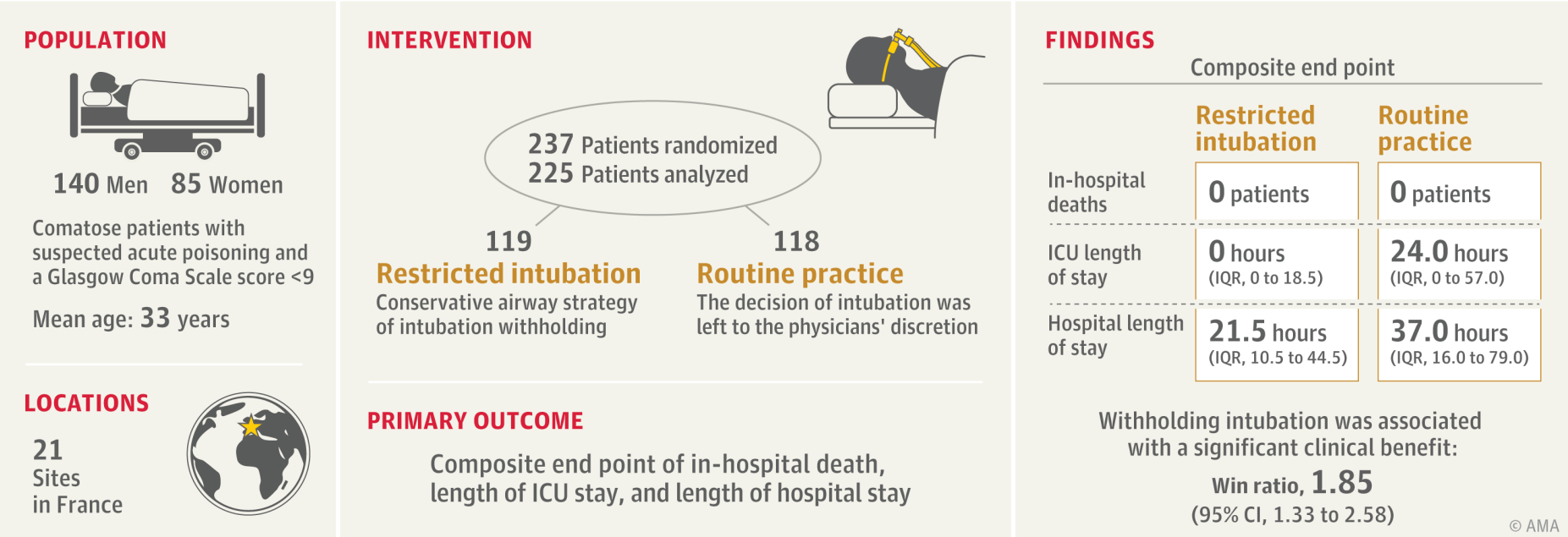
Win ratio, **1.85**
(95% CI, 1.33 to 2.58)

© AMA

Freund Y, Viglino D, Cachanado M, et al. Effect of noninvasive airway management of comatose patients with acute poisoning: a randomized clinical trial. *JAMA*. Published November 29, 2023. doi:10.1001/jama.2023.24391



Studien-Design



Freund Y, Viglino D, Cachanado M, et al. Effect of noninvasive airway management of comatose patients with acute poisoning: a randomized clinical trial. *JAMA*. Published November 29, 2023. doi:10.1001/jama.2023.24391

Outcomes

Table 2. Components of the Primary Outcome and Secondary Outcomes^a

Outcome	No. (%)		Value (95% CI)	Absolute difference, percentage points (95% CI) ^b
	Restricted intubation (n = 116)	Control (n = 109)		
Components of the primary outcome				
In-hospital death	0	0	NC	NC
Intensive care unit admission	46 (39.7)	72 (66.1)	OR = 0.23 (0.12 to 0.44)	-29.2 (-41.0 to -17.4)
Median length of intensive care unit stay (IQR), h	0 (0 to 18.5)	24.0 (0 to 57.0)	RR = 0.39 (0.24 to 0.66)	
Median length of hospital stay (IQR), h	21.5 (10.5 to 44.5)	37.0 (16.0 to 79.0)	RR = 0.74 (0.53 to 1.03)	
Mechanical ventilation	21 (18.1)	65 (59.6)	OR = 0.12 (0.06 to 0.24)	-42.5 (-54.1 to -30.9)

Quelle: Freund Y et al., JAMA 2023

Outcomes

Table 2. Components of the Primary Outcome and Secondary Outcomes^a

Outcome	No. (%)		Value (95% CI)	Absolute difference, percentage points (95% CI) ^b
	Restricted intubation (n = 116)	Control (n = 109)		
Components of the primary outcome				
In-hospital death	0	0	NC	NC
Intensive care unit admission	46 (39.7)	72 (66.1)	OR = 0.23 (0.12 to 0.44)	-29.2 (-41.0 to -17.4)
Median length of intensive care unit stay (IQR), h	0 (0 to 18.5)	24.0 (0 to 57.0)	RR = 0.39 (0.24 to 0.66)	
Median length of hospital stay (IQR), h	21.5 (10.5 to 44.5)	37.0 (16.0 to 79.0)	RR = 0.74 (0.53 to 1.03)	
Mechanical ventilation	21 (18.1)	65 (59.6)	OR = 0.12 (0.06 to 0.24)	-42.5 (-54.1 to -30.9)
Additional secondary outcomes				
Median length of mechanical ventilation (IQR), h	0 (0 to 0)	6.0 (0 to 21.0)	RR = 0.21 (0.11 to 0.38)	
Occurrence of pneumonia	8 (6.9)	16 (14.7)	OR = 0.43 (0.18 to 1.05)	-7.8 (-15.9 to 0.3)
Adverse event from intubation ^c	7/113 (6.0) [n = 113]	16/107 (14.7) [n = 107]	OR = 0.37 (0.15 to 0.95)	-8.6 (-16.6 to -0.7)
Systolic blood pressure <90 mm Hg	3 (2.7)	2 (1.9)		
Peripheral oxygen saturation <90%	2 (1.8)	4 (3.7)		
Vomiting	2 (1.8)	0		
Difficult intubation with IDS ≥5	1 (0.9)	14 (13.1)		
Dental trauma	0	2 (1.9)		
Cardiac arrest	0	0		
Esophageal intubation	0	4 (3.7)		
First pass failure	1/113 (0.9)	14/107 (13.1)	OR = 0.06 (0.01 to 0.46)	-12.2 (-18.8 to -5.6)

Quelle: Freund Y et al., JAMA 2023

Outcomes

Table 2. Components of the Primary Outcome and Secondary Outcomes^a


Outcome	No. (%)			
Coma	2 (1.9)			
Intubation	0			
First pass failure	1/113 (0.9)	14/107 (13.1)	OR = 0.06 (0.01 to 0.46)	-12.2 (-18.8 to -5.6)

Open access

BMJ Open

2021

Aspiration risk in relation to Glasgow Coma Scale score and clinical parameters in patients with severe acute alcohol intoxication: a single-centre, retrospective study

Michael Conzelmann,^{1,2} Anne Hoidis,³ Thomas Bruckner,⁴ Erik Popp,⁵
 Ronald Koschny ³

Original research

Outcomes

Table 2. Components of the Primary Outcome and Secondary Outcomes^a

Outcome	No. (%)			
Aspiration risk in relation to Glasgow Coma Scale score and clinical parameters in patients with severe acute alcohol intoxication: a single-centre, retrospective study				
Michael Conzelmann, ^{1,2} Anne Hoidis, ³ Thomas Bruckner, ⁴ Erik Popp, ⁵ Ronald Koschny  ³				
	2 (1.9)			
	0			
	0			
	4 (3.7)			
First pass failure	1/113 (0.9)	14/107 (13.1)	OR = 0.06 (0.01 to 0.46)	-12.2 (-18.8 to -5.6)

Open access

BMJ Open

Original research



Quelle: Freund Y et al., JAMA 2023



Einsatz - 13:13 Uhr



Einsatz - 13:13 Uhr

- Gerda 59 W
- A-C blande
- GCS 14 (verwirrt)
- BZ 197 ng/dl

Z.n. ACB 2021, VHF, Herzinsuff.
CNI, DM T2, Z.n. AE

Keine Allergien



Einsatz - 13:13 Uhr

- Gerda 59 W
- A-C blande
- GCS 14 (verwirrt)
- BZ 197 ng/dl

Z.n. ACB 2021, VHF, Herzinsuff.
CNI, DM T2, Z.n. AE

Keine Allergien

„2x Weinschorle“ → Übergabe RTW; V.a. AZ-Minderung
DD C2 → Status 1 um 13:30



Einsatz - 13:40 Uhr



Einsatz - 13:40 Uhr

- Gerda 59 W !!



Einsatz - 13:40 Uhr

- Gerda 59 W !!

- A-C blande
- GCS 14 (verwirrt)
- BZ 179 ng/dl

- 0,4 Promille



Einsatz - 13:40 Uhr



- Gerda 59 W !!

- A-C blande
- GCS 14 (verwirrt)
- BZ 179 ng/dl

- 0,4 Promille

- „Keine ICU-Kapazität“

👉 Gastro-Intensiv

Wofür ICU....?

Wofür ICU....?

art. BGA:

pH 6,97

pCO₂ 11 mmH

pO₂ 147 mmHg

BE -32 mmmol/l

HCO₃⁻ 5,1 mmol/l

K⁺ 4,9 mmol/l

Na⁺ 140 mmol/l

Ca²⁺ 1,18 mmol/l

Cl⁻ 105 mmol/l

BZ 179 ng/dl

Laktat 10,5 mg/dl

Wofür ICU....?

art. BGA:

pH 6,97

pCO₂ 11 mmH

pO₂ 147 mmHg

BE -32 mmmol/l

HCO₃⁻ 5,1 mmol/l

K⁺ 4,9 mmol/l

Na⁺ 140 mmol/l

Ca²⁺ 1,18 mmol/l

Cl⁻ 105 mmol/l

BZ 179 ng/dl

Laktat 10,5 mg/dl

Urin:

Ketone (+)

Glucose +++++

Wofür ICU....?

art. BGA:

pH 6,97

pCO₂ 11 mmH

pO₂ 147 mmHg

BE -32 mmmol/l

HCO₃⁻ 5,1 mmol/l

K⁺ 4,9 mmol/l

Na⁺ 140 mmol/l

Ca²⁺ 1,18 mmol/l

Cl⁻ 105 mmol/l

BZ 179 ng/dl

Laktat 10,5 mg/dl

Urin:

Ketone (+)

Glucose +++++

Wofür ICU....?

art. BGA:

pH 6,97

pCO₂ 11 mmH

pO₂ 147 mmHg

BE -32 mmmol/l

HCO₃⁻ 5,1 mmol/l

K⁺ 4,9 mmol/l

Na⁺ 140 mmol/l

Ca²⁺ 1,18 mmol/l

Cl⁻ 105 mmol/l

BZ 179 ng/dl / 700

Laktat 10,5 mg/dl

Keto-Azidose?
Ohne viel Zucker?
Ohne viel Ketone?
Kein Typ1 Diabetiker?

Urin:

Ketone (+) / +++



Glucose +++++ / +

Euglykämie Ketoazidose – ein Kolibri, der zur Taube werden könnte

Quelle: Dtsch Med Wochenschr 2021; 146(19): 1265-1269







Sodium-Glucose-Transporter-2-Inhibitoren

- SGLT2i -

- Ursprünglich: Anti-Diabetikum 
- (u.a.) Ausscheidung von Na⁺ u. Glucose
- → BZ niedriger, diuretische Wirkung → RR 

Sodium-Glucose-Transporter-2-Inhibitoren

- SGLT2i -

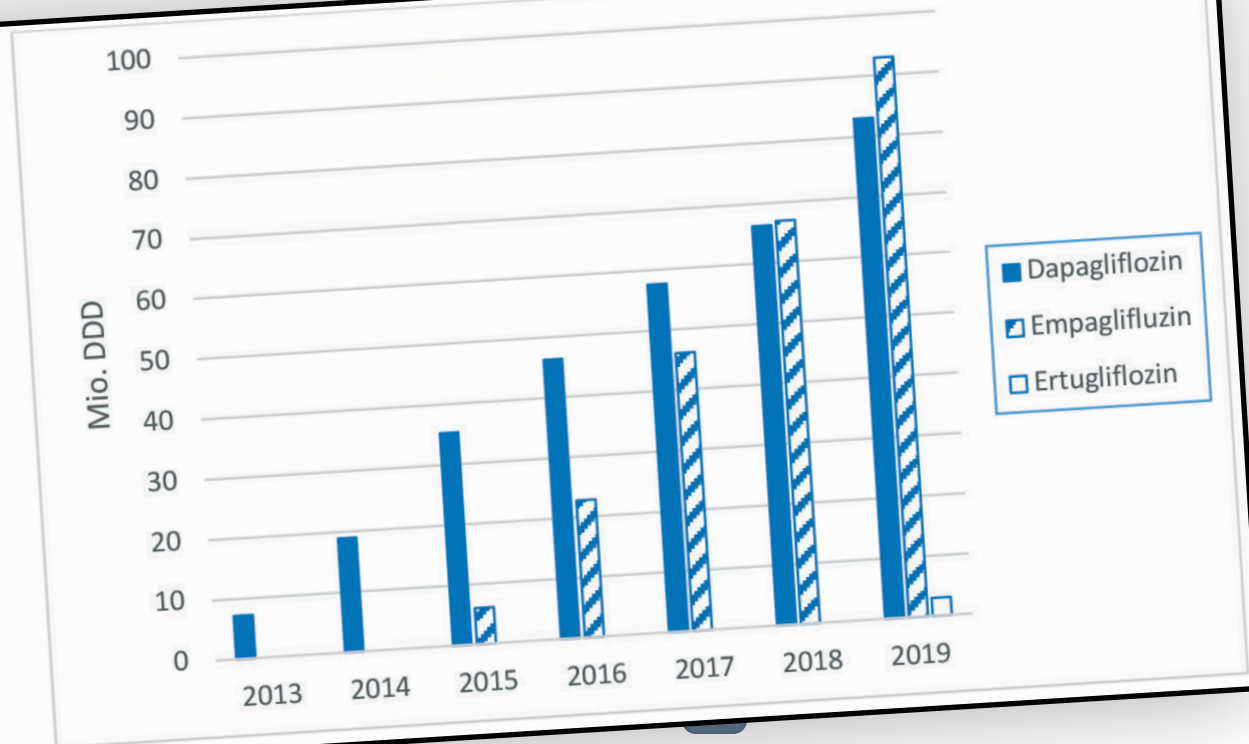
- Ursprünglich: Anti-Diabetikum 
- (u.a.) Ausscheidung von Na⁺ u. Glucose
- → BZ niedriger, diuretische Wirkung → RR 
-  Herzinsuffizienz → CV-Mortalität 
-  Niereninsuffizienz → Nierenfunktion 

Sodium-Glucose-Transporter-2-Inhibitoren - SGLT2i -

Abbildung: GKV-Verordnungen der in Deutschland verfügbaren SGLT2-Inhibitoren von 2013 bis 2019

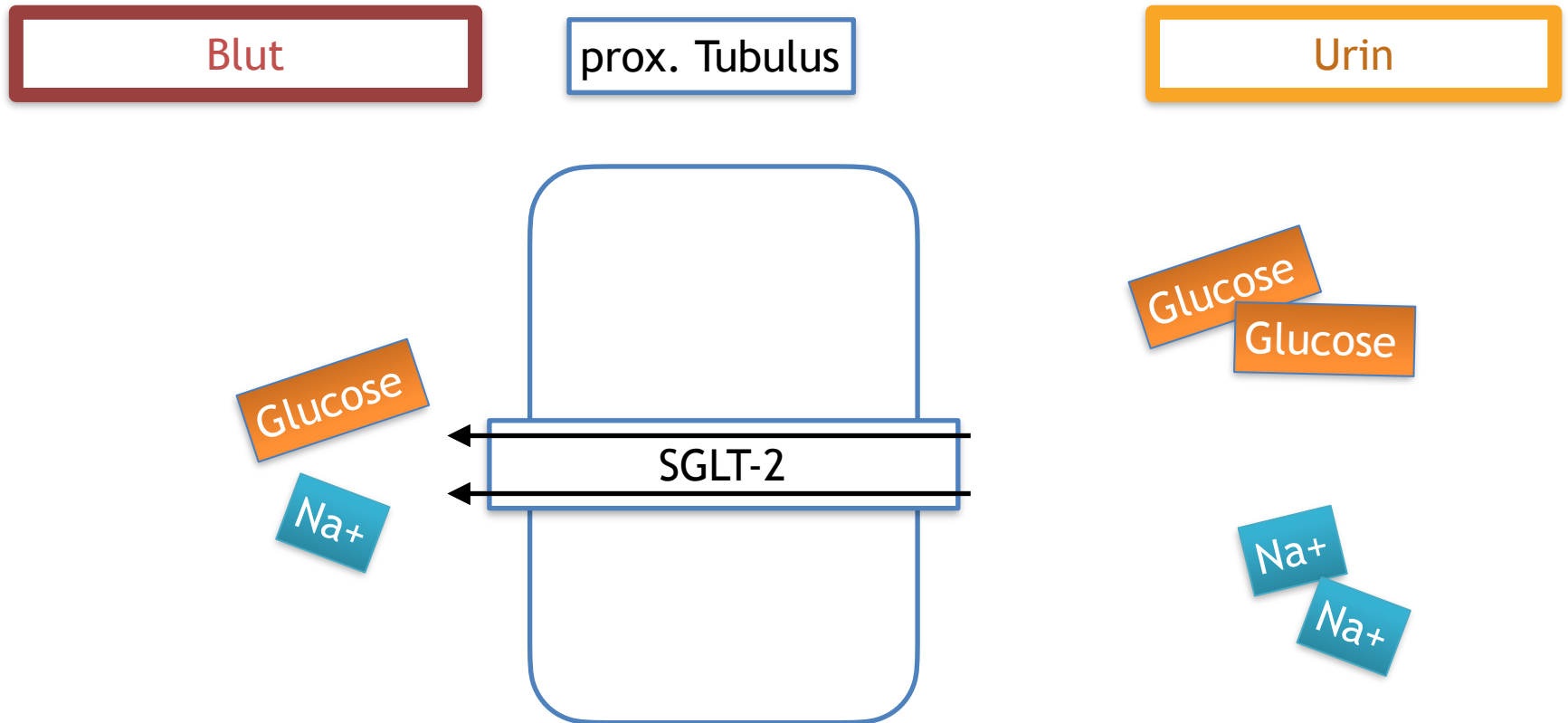
Gesamtverordnungen nach definierten Tagesdosen (DDD) in Millionen

Quelle: Grafik erstellt anhand der Daten im Arzneiverordnungs-Report (Ausgaben 2014 bis 2020)

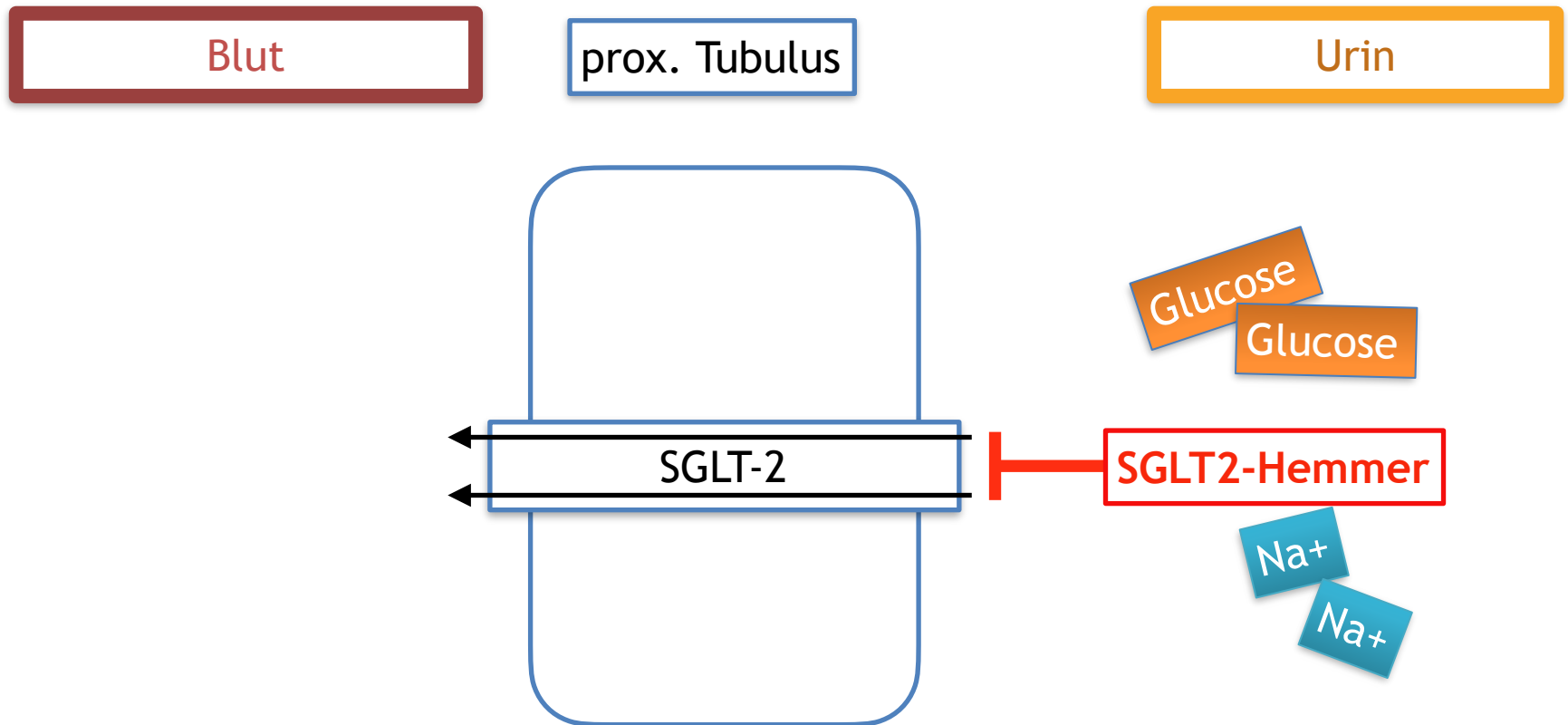


Quelle: Bulletin zur Arzneimittelsicherheit 4-2020

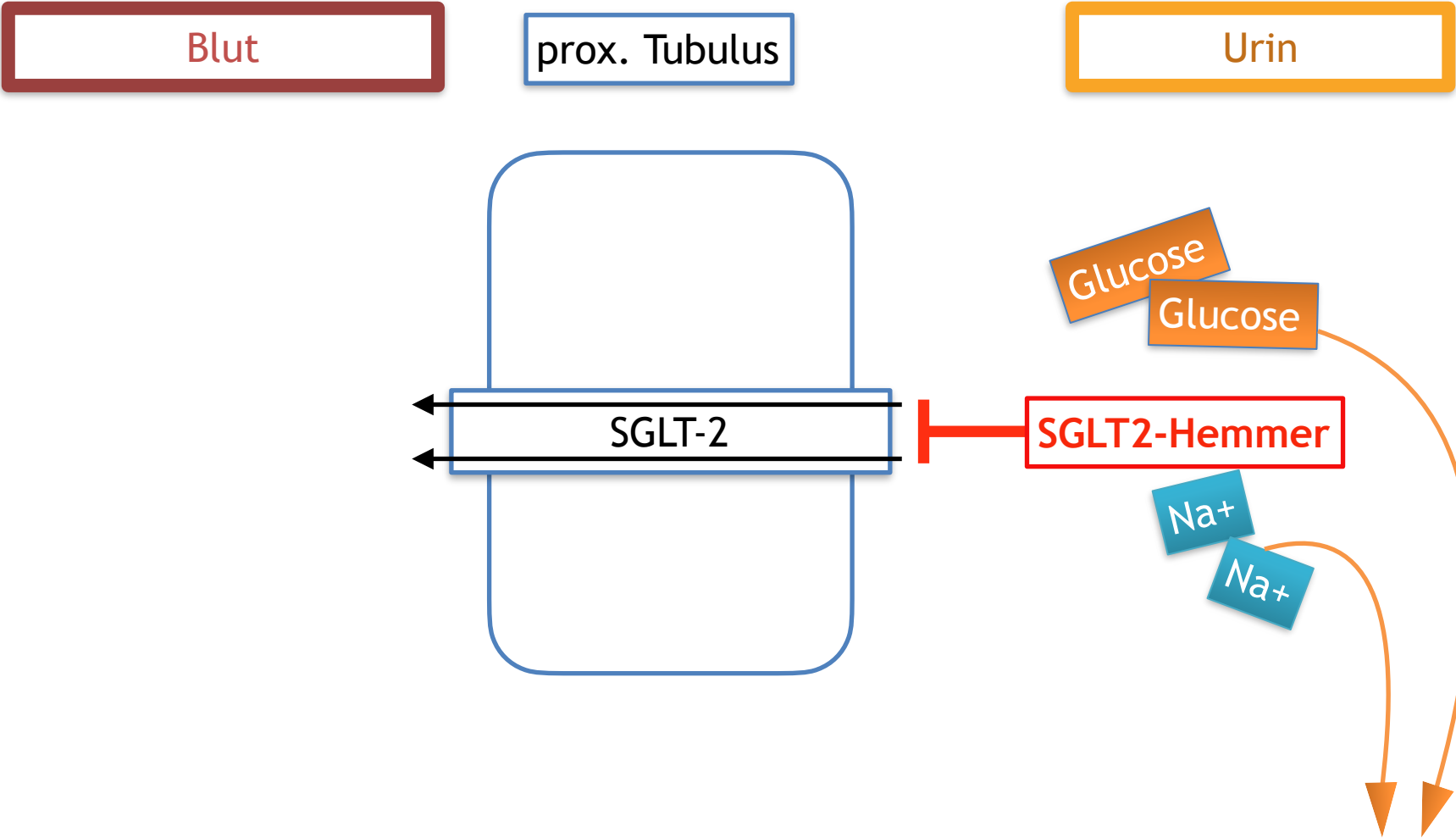
Wirkweise SGLT2i



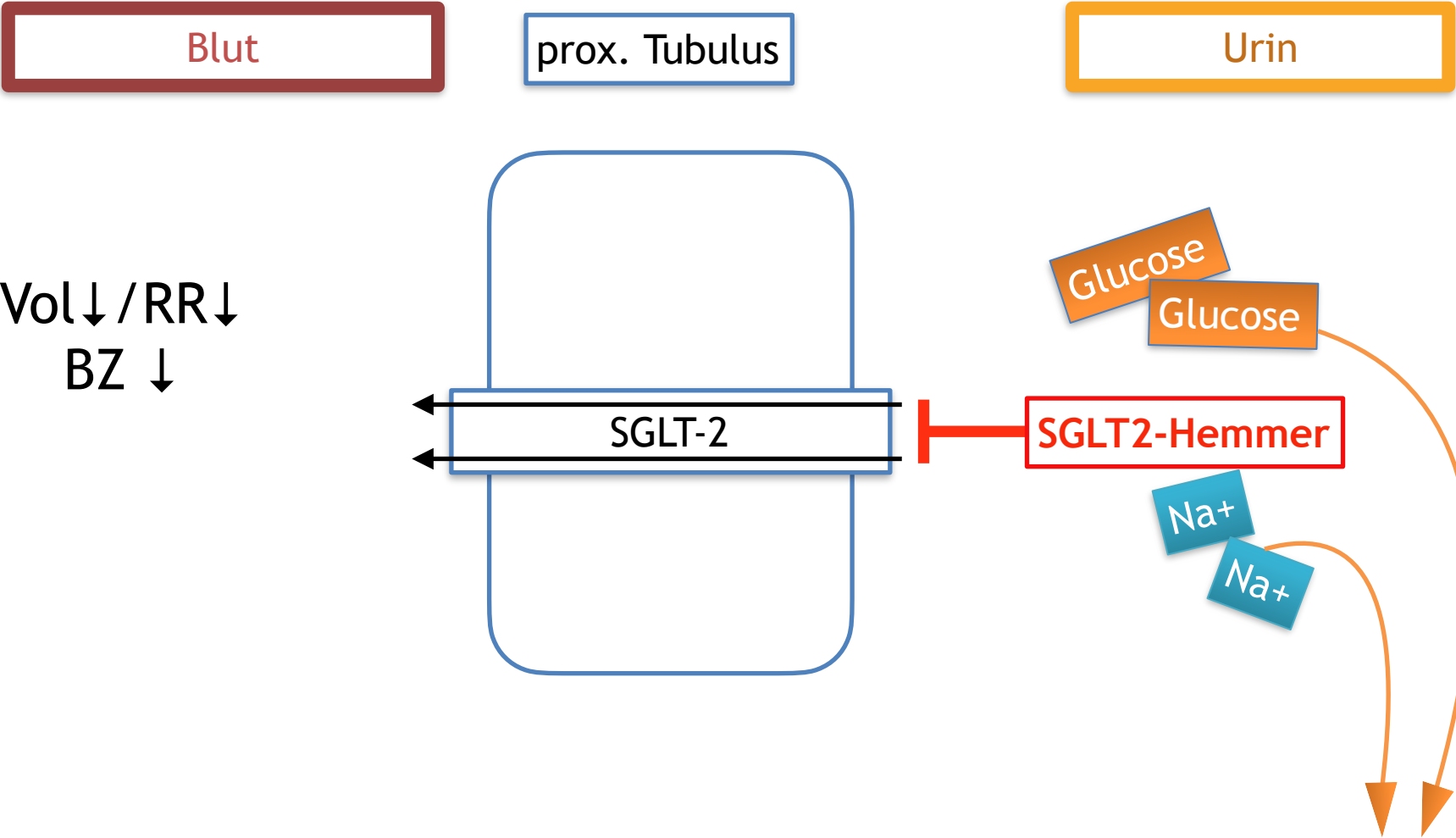
Wirkweise SGLT2i



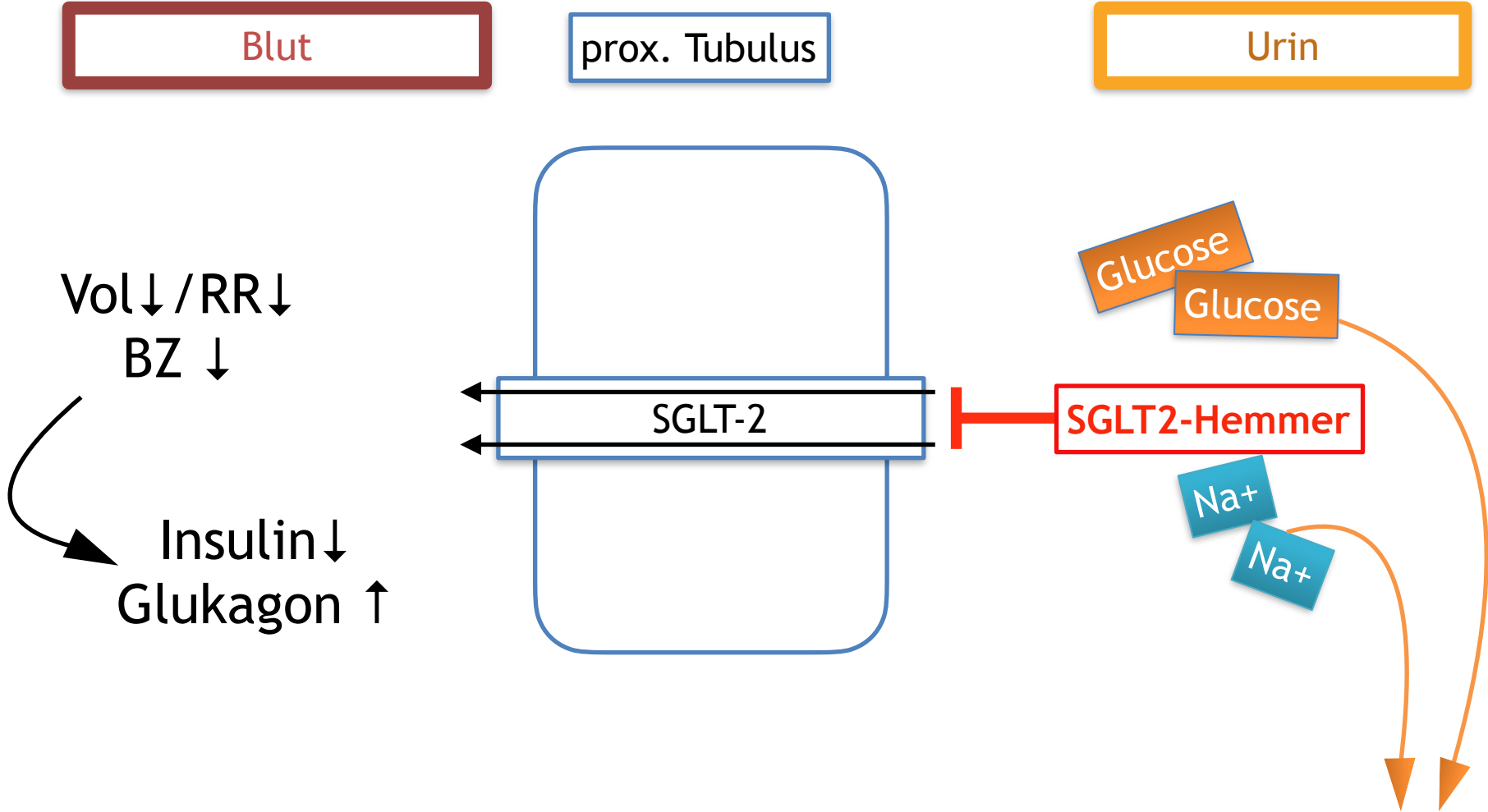
Wirkweise SGLT2i



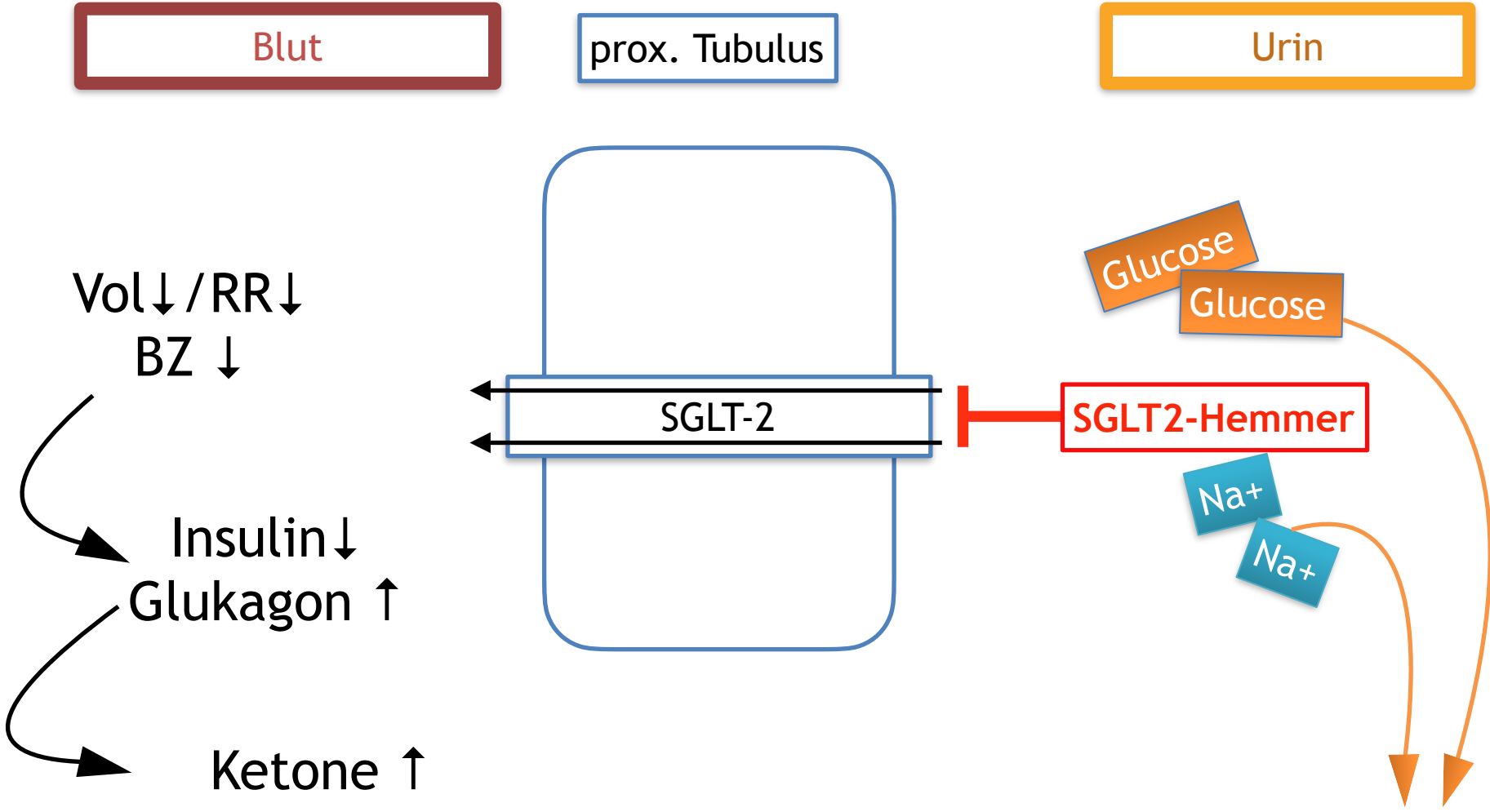
Wirkweise SGLT2i



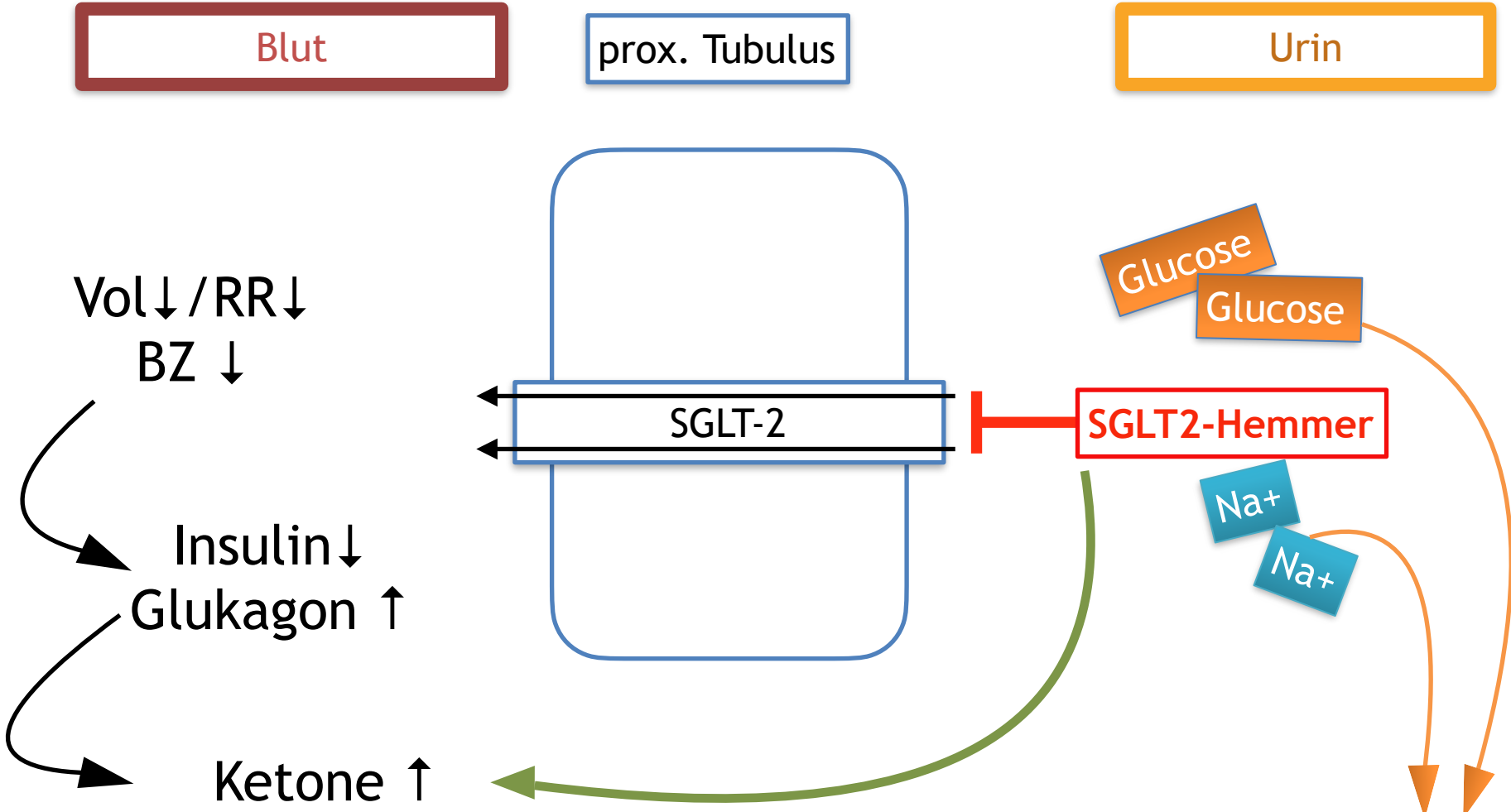
Wirkweise SGLT2i



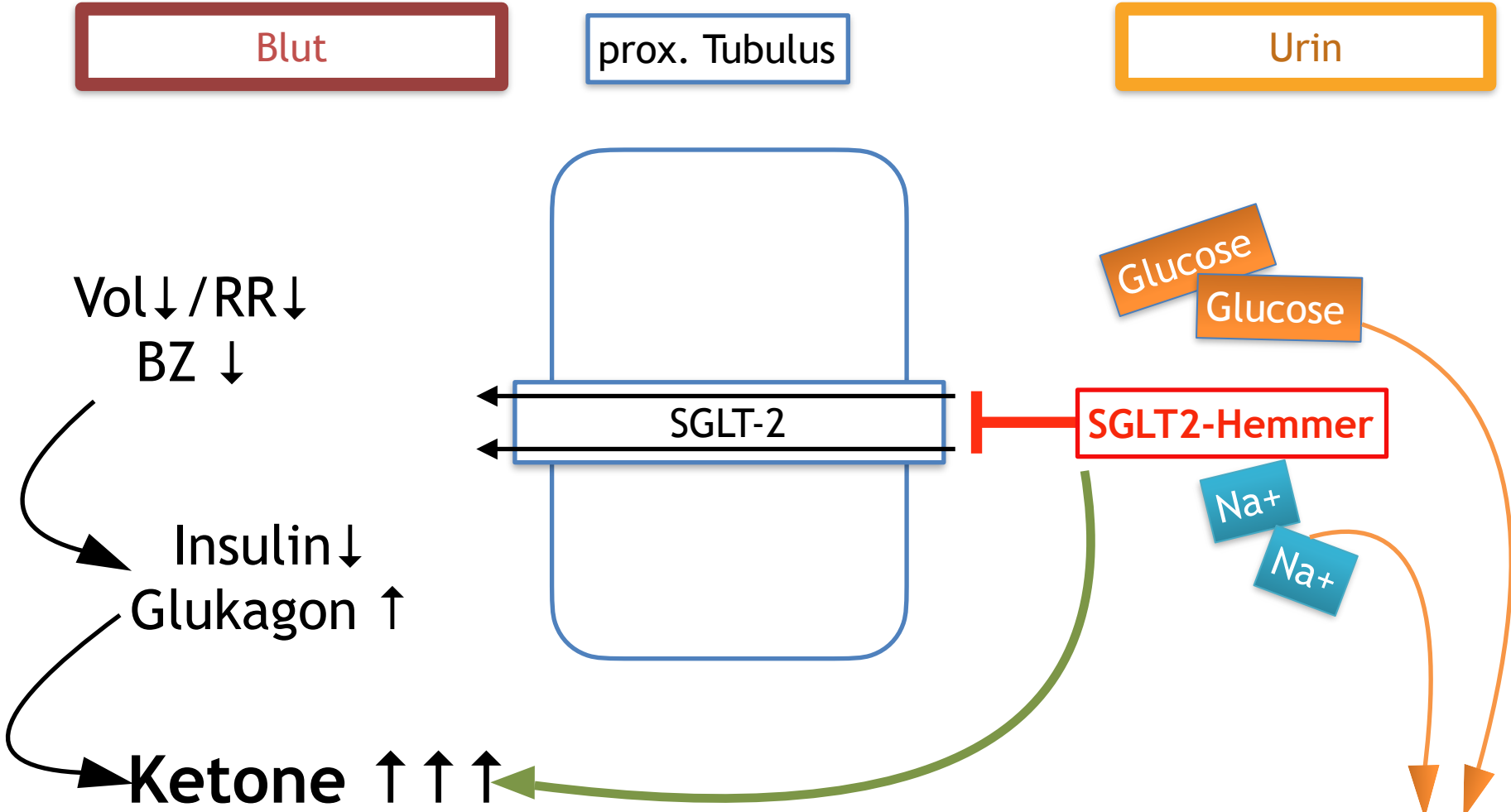
Wirkweise SGLT2i



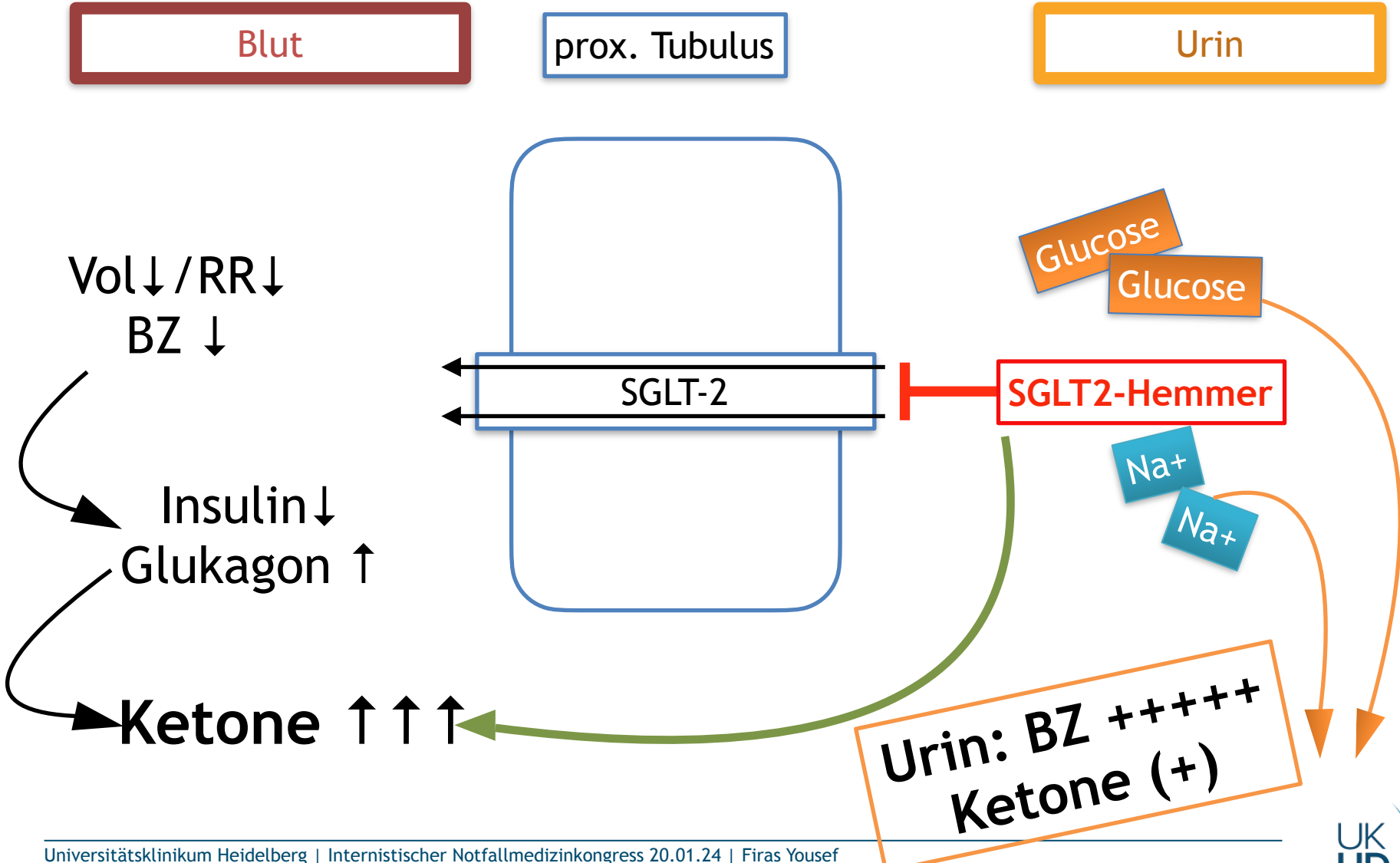
Wirkweise SGLT2i



Wirkweise SGLT2i



Wirkweise SGLT2i



„Altes Krankheitsbild“ in „neuem Kleid“

- „Selten“ mit 0,1-2,2 %
- Unabhängig wie lange zuvor eingenommen!
- Auslöser: red. Nahrungsaufnahme, Infekt, Chirurgie

- Atyp. Verlauf -> verzögerte Diagnose -> gehäuft lebensbedrohliche Verläufe!

- Therapie: Glukose, Insulin, (ggf. NaBic); CAVE K⁺ u. PO₄³⁻

- Einmal eugDKA —> SGLT2i meiden!
- SGLT2i lange HWZ (idealerweise 2-3d vor OPs)
- Rote Handbrief für DMT1!

Einsatz - 23:13 Uhr

- Herbert 69 M
- kardiopulm. stabil
- BZ + Temp.normal



Einsatz - 23:13 Uhr

- Herbert 69 M
- kardiopulm. stabil
- BZ + Temp.normal
- VAS 7/10
- Candesartan, L-Thyroxin, 70 PY



Einsatz - 23:13 Uhr

- Herbert 69 M
- kardiopulm. stabil
- BZ + Temp.normal
- VAS 7/10
- Candesartan, L-Thyroxin, 70 PY



👉 Anmeldung CPU: „ACS. Kein STEMI“

Einsatz - 23:13 Uhr

- Herbert 69 M
- kardiopulm. stabil
- BZ + Temp.normal
- VAS 7/10
- Candesartan, L-Thyroxin, 70 PY



👉 Anmeldung CPU: „ACS. Kein STEMI“

👉 „HS-EKG!“ → Coro → Notfall-Bypass

...muss man kennen



2023 ESC Guidelines for the management of acute coronary syndromes

ESC Clinical Practice Guidelines

25 Aug 2023

ESC Guidelines ACS 2023

ACS encompasses a spectrum



Unstable angina

NSTEMI

STEMI

ACS encompasses a spectrum

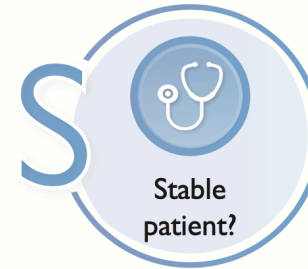
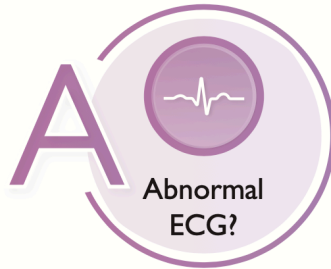


Unstable angina

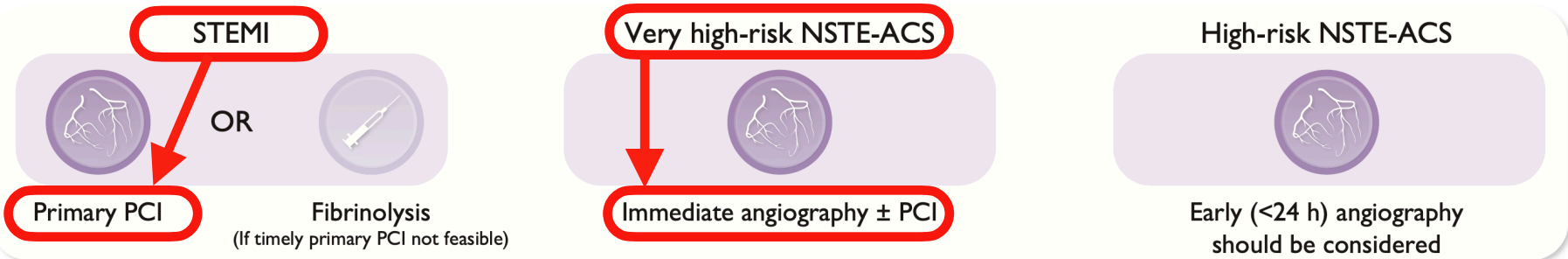
NSTEMI

STEMI

1 Think 'A.C.S.' at initial assessment



2 Think invasive management



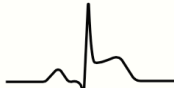










ACS presentation




Initial A.C.S. assessment

- ECG 
- Physical examination 
- Clinical history 
- Vital signs 
- hs-cTn^a levels 

Working diagnosis

STEMI	NSTEMI-ACS with very high-risk features ^b	NSTEMI-ACS without very high-risk features ^b
	 	
Immediate angiography ± PPCI or fibrinolysis if timely PPCI not feasible	Immediate angiography ± PCI	Consider angiography within 24 h for NSTEMI-ACS with high risk features
   <p>PPCI ATT Fibrinolysis</p>	  <p>PCI ATT</p>	  <p>PCI ATT</p>


Early invasive angiography according to patient risk


ACS
presentation




Initial A.C.S.
assessment


ECG


Physical examination


Clinical history


Vital signs

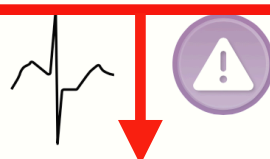

hs-cTn^a levels



Working
diagnosis

STEMI



**NSTE-ACS
with very high-risk features^b**



**NSTE-ACS
without very high-risk features^b**




Early invasive
angiography
according to
patient risk

Immediate angiography ±

PPCI or fibrinolysis if timely
PPCI not feasible



PPCI



ATT



Fibrinolysis

Immediate angiography

± PCI



PCI



ATT

Consider angiography
within 24 h for NSTE-ACS
with high risk features

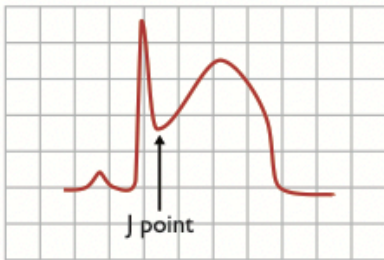


PCI



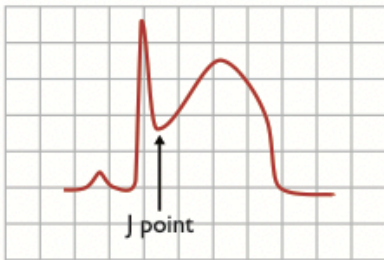
ATT

STEMIs und Äquivalente

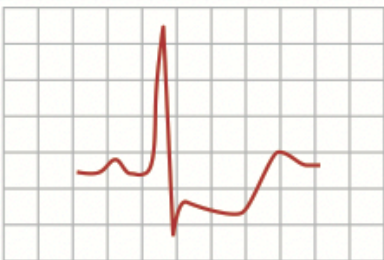


STEMI (klassisch)

STEMIs und Äquivalente



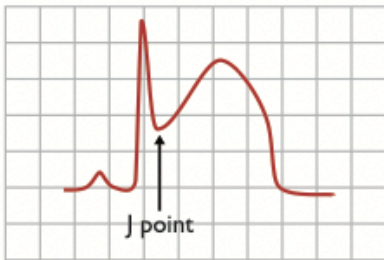
STEMI (klassisch)



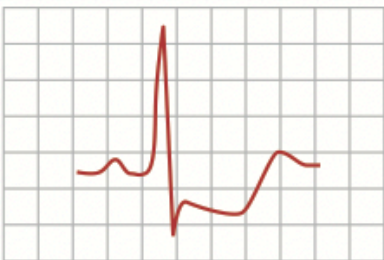
HW / LCX

VI-V3

STEMIs und Äquivalente

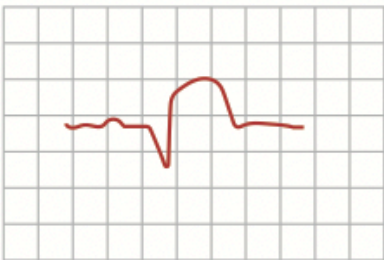


STEMI (klassisch)



V1-V3

HW / LCX

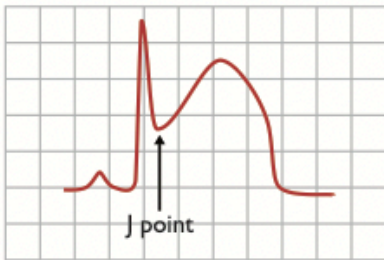


V7-V9, V3R and V4R

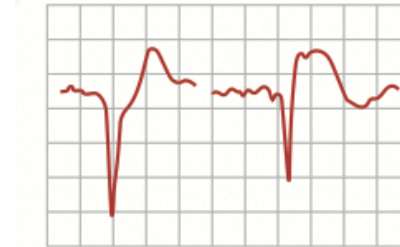
LCX

ESC Guidelines 2023 ACS (modified)

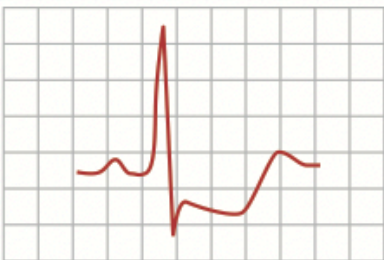
STEMIs und Äquivalente



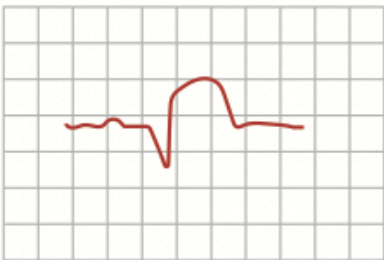
STEMI (klassisch)



Haupt-
Stamm*



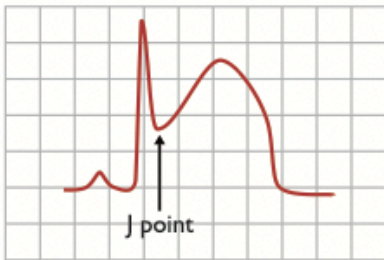
HW / LCX



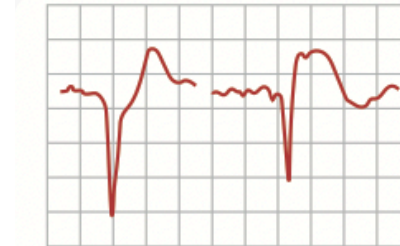
LCX

ESC Guidelines 2023 ACS (modified)

STEMIs und Äquivalente

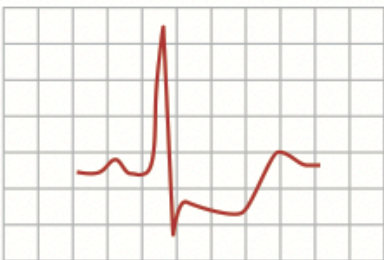


STEMI (klassisch)



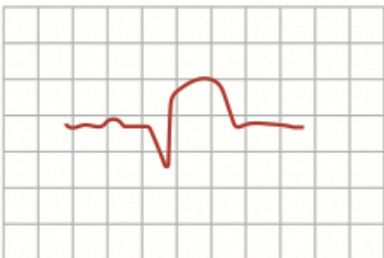
ST depression ≥ 1 mm in six or more surface leads
ST elevation in aVR and/or V1

Haupt-Stamm*



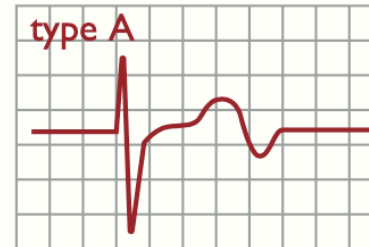
V1-V3

HW / LCX



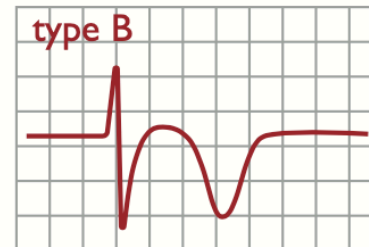
V7-V9, V3R and V4R

LCX



type A

(V1-)V2-V3(-V4)



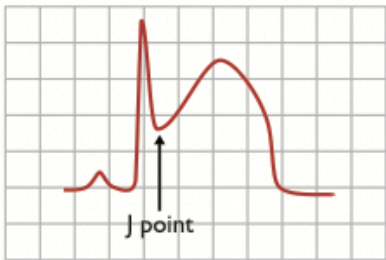
type B

(V1-)V2-V3(-V4)

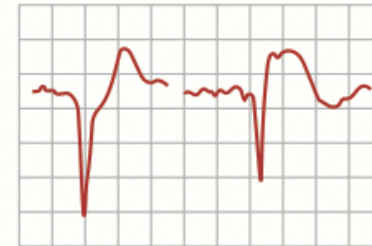
Wellens (prox. LAD)

ESC Guidelines 2023 ACS (modified)

STEMIs und Äquivalente



STEMI (klassisch)



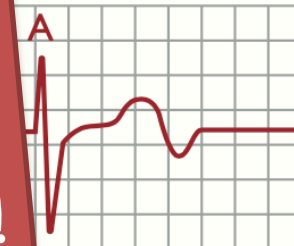
ST depression in I, II, III, aVR and/or aVL
ST elevation in V1, V2 and/or V3
surface leads

Haupt-
Stamm*

Schenkelblöcke (+ Klinik):
neuer LSB = STEMI
 LSB in CPU >50% kein MI
 (neuer) RSB bis zu 40% MI!

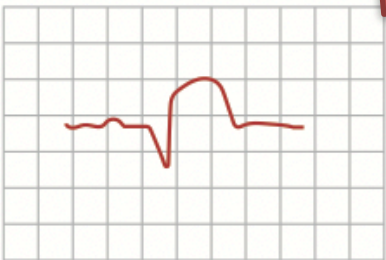


V1-V3



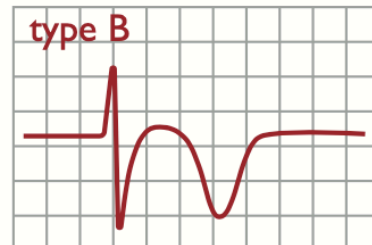
(V1-)V2-V3(-V4)

Wellens
(prox. LAD)



V7-V9, V3R and V4R

LCX

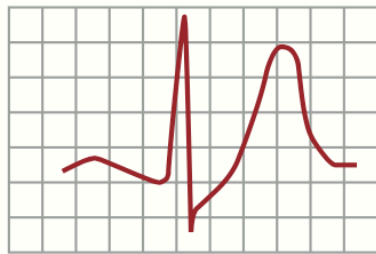


type B
(V1-)V2-V3(-V4)

ESC Guidelines 2023 ACS (modified)

Hoch-Risiko-EKGs

De Winter



VI-V6

- asc. ST-Strecken
- prominente T-Welle

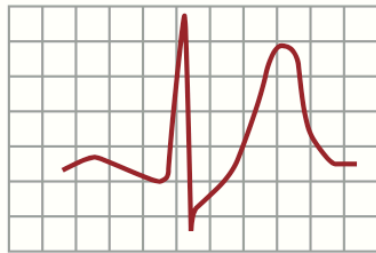
Oftmals VW-STEMI-„Vorbote“

→ prox. LAD

<https://litfl.com/aslanger-pattern/> (modified)
ESC Guidelines 2023 ACS (modified)

Hoch-Risiko-EKGs

De Winter



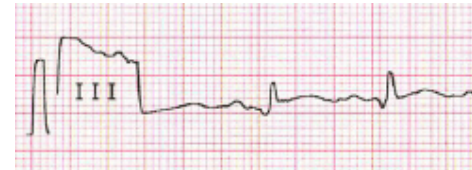
VI-V6

- asc. ST-Strecken
- prominente T-Welle

Oftmals VW-STEMI-„Vorbote“

→ **prox. LAD**

(Aslanger)



- Isolierte STE in III
- ST-depression in *jeglicher* von V4-V6

→ **Kritische Mehr-Gefäß-KHK!**

(in-hospital-Letalität wie HW-STEMI!)

<https://litfl.com/aslanger-pattern/> (modified)
ESC Guidelines 2023 ACS (modified)

Einsatz - 02:13 Uhr



Einsatz - 02:13 Uhr

- Lisa 29 W

VE: Z.n. „Herzrasen“, Asthma
Medis: Pille
Keine Allergien

Isoliertes C-Problem (Tachykardie)



„Urplötzlich wie wenn man das Licht an macht!“

—> **12-Kanal-EKG:**

REVERT Trial

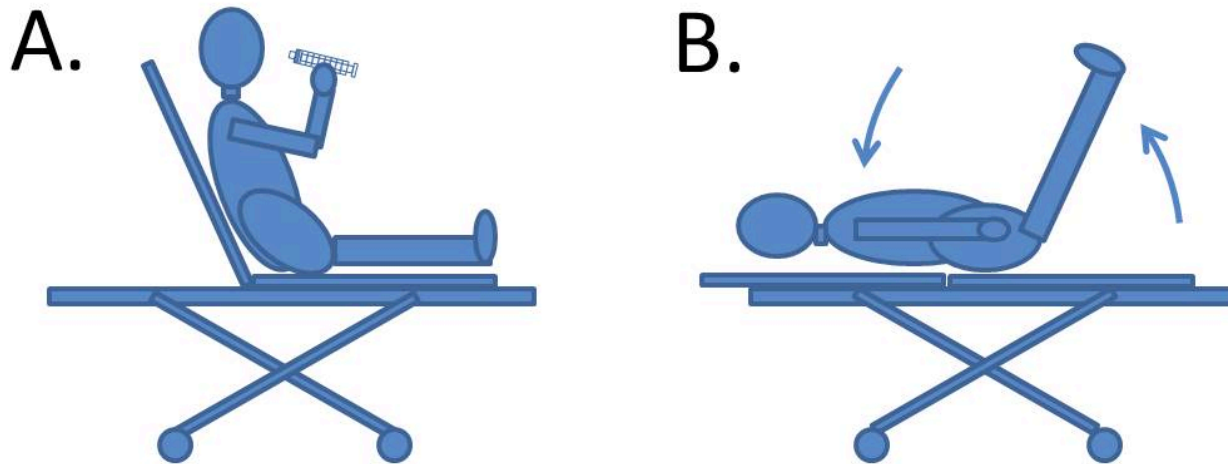


Postural Modification to the Standard
Valsalva Maneuver



Quelle: <https://www.ecgmedicaltraining.com/svt-adenosine-revert-trial/>

REVERT Trial



Postural Modification to the Standard
Valsalva Maneuver



Quelle: <https://www.ecgmedicaltraining.com/svt-adenosine-revert-trial/>

REVERT Trial

- Randomisiert, multi-center (10x) in UK
- **X** Ausschluss bei: VHF + VHFlatt. (—> Adenosin)
- **⊘** weitere KI: schwerer AKS, kürzlicher MI, Glaukom, Retinopathie, SS im 3. Trimenon

REVERT Trial

- Randomisiert, multi-center (10x) in UK
- **X** Ausschluss bei: VHF + VHFlatt. (—> Adenosin)
- **⊘** weitere KI: schwerer AKS, kürzlicher MI, Glaukom, Retinopathie, SS im 3. Trimenon

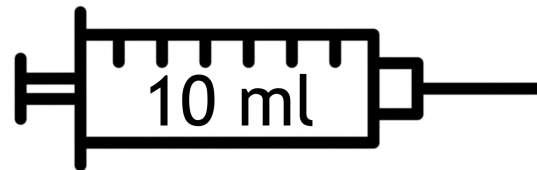
	Standard VM (n=214)	Modified VM (n=214)	Effect size (95%CI)	p value
Presence of sinus rhythm at 1 min after VM	37 (17%)	93 (43%)	3.7 (2.3–5.8)	<0.0001

Quelle: REVERT Trial; Lancet 2015; 386: 1747-53

REVERT Trial

- Randomisiert, multi-center (10x) in UK
- **X** Ausschluss bei: VHF + VHFlatt. (—> Adenosin)
- **⊖** weitere KI: schwerer AKS, kürzlicher MI, Glaukom, Retinopathie, SS im 3. Trimenon

	Standard VM (n=214)	Modified VM (n=214)	Effect size (95%CI)	p value
Presence of sinus rhythm at 1 min after VM	37 (17%)	93 (43%)	3.7 (2.3–5.8)	<0.0001



Quelle: REVERT Trial; Lancet 2015; 386: 1747-53

Zusammenfassung

1. GCS 3 - geht auch in stabiler Seitenlage
2. Augen auf bei „-gliflozinen“
3. kenn' die STEMIs
4. Spritze + Füße hoch bei schmaler Tachy

Zusammenfassung

1. GCS 3 - geht auch in stabiler Seitenlage
2. Augen auf bei „-gliflozinen“
3. kenn' die STEMIs
4. Spritze + Füße hoch bei schmaler Tachy
- 5. sei kein Depp !!**

16:15 Uhr

