



Fecal impaction

in patients with a spinal cord injury

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Jan



- **25 year old male**
- SCI Th 4, AIS A, 7 weeks ago
- Recently admitted
- Incontinent for liquid stool



Rectal distension

Rectal contraction

Relaxation IAS

Urge

Right moment

Wrong moment

Abdominal press

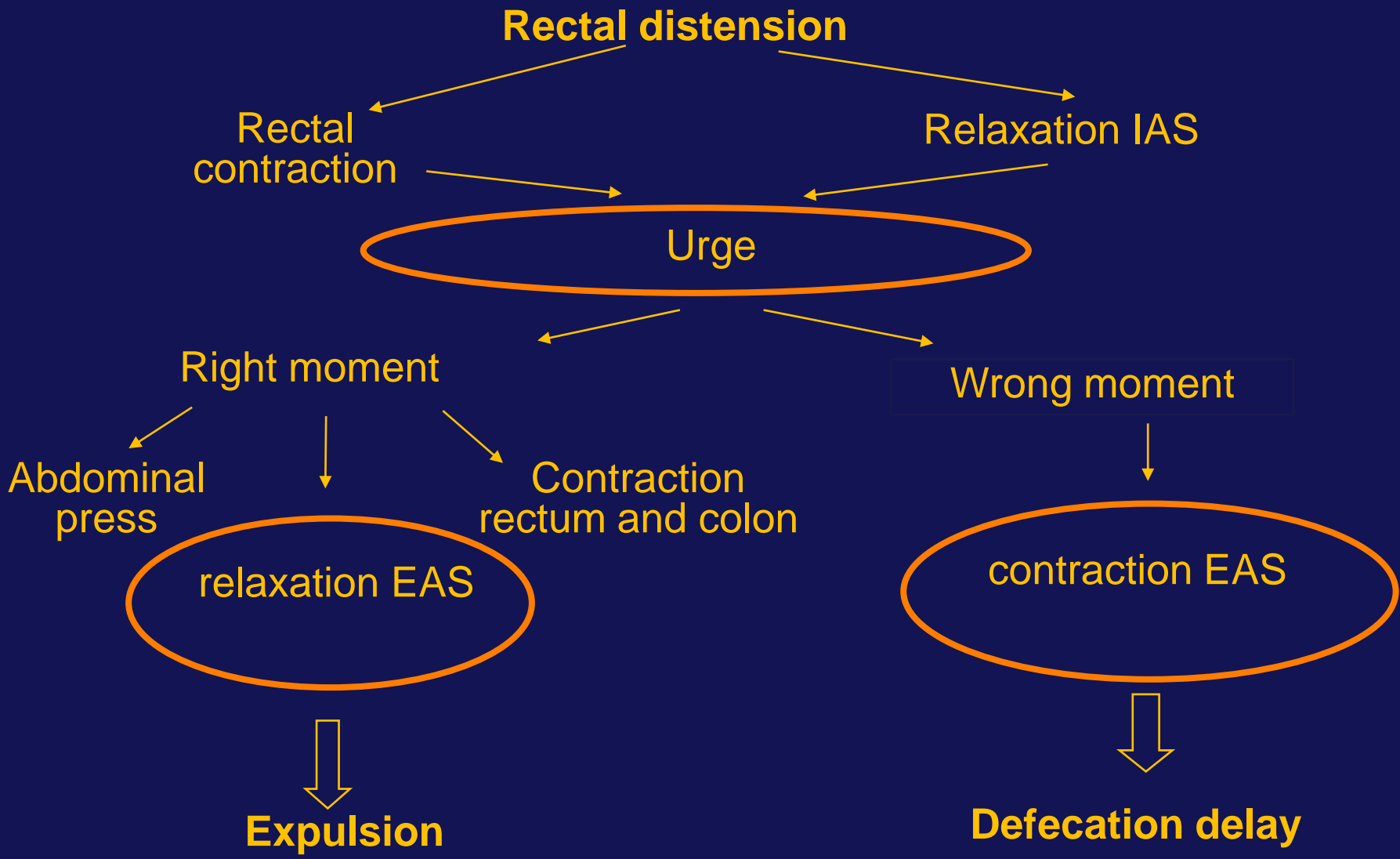
Contraction rectum and colon

relaxation EAS

contraction EAS

Expulsion

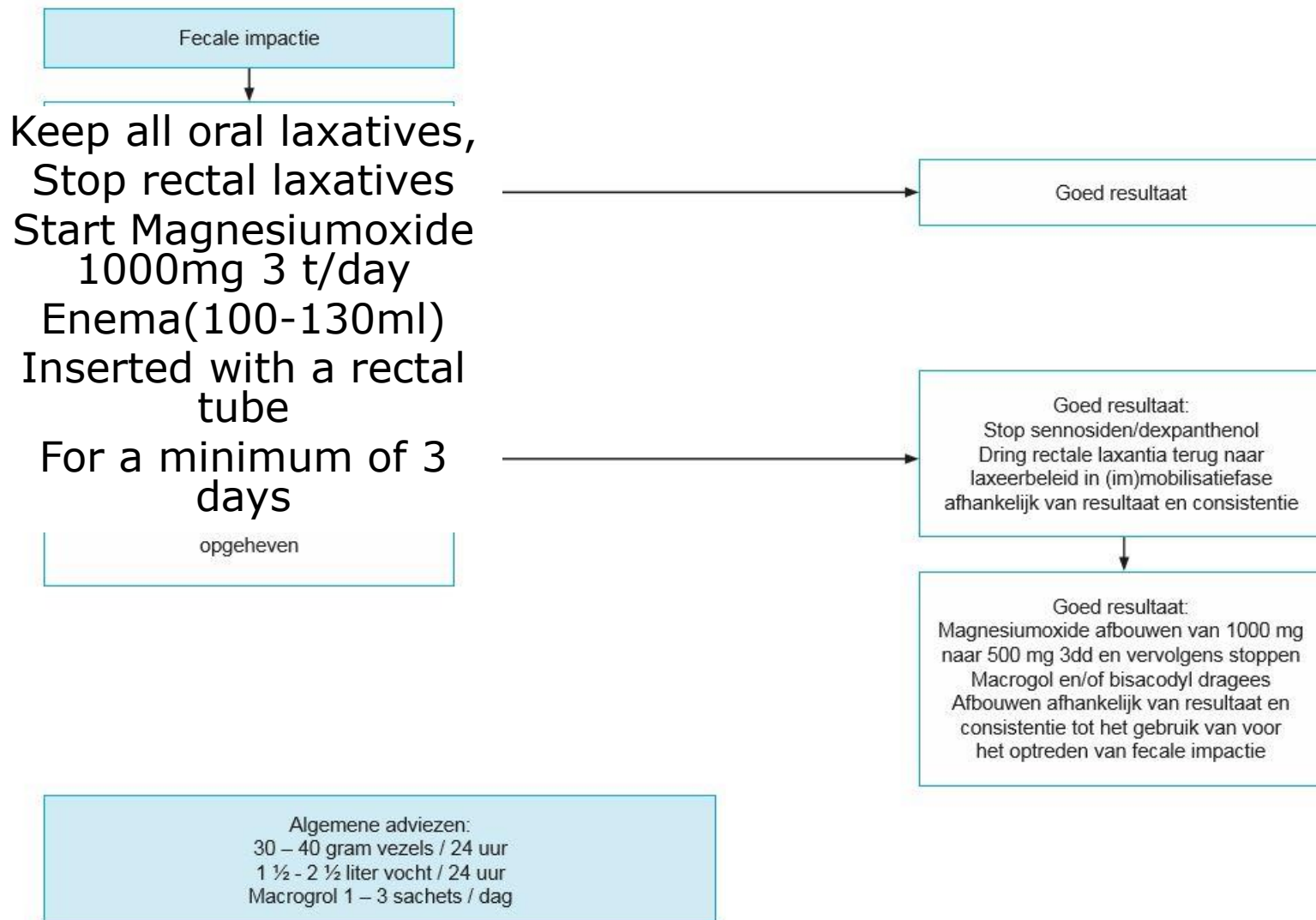
Defecation delay





Bowelmanagement in SCI

- Vast moment per dag om de darm te legen
- Most of the time more than 1 intervention(Adriaansen, 2010)
- Limited proof for interventions (Coggrave, 2014)
- Fecale impaction is regularly seen
 - Severe type of constipation
 - Loss of appetite, nausea, fecal incontinence
 - Complications such as perforation(Araghizadeh, 2005)
- Guideline bowelmanagement (2012)





Research question

- At which moment during rehabilitation fecal impaction is mostly seen
- Which interventions where use to solve fecal impaction and are those interventions conform guideline
- What is the result of those interventions



Research design

- Retrospective, multicenter
- Inclusion
 - Adults
 - Recently gained SCI
 - Admitted to rehabilitation between 1-1-2014 en 31-12-2014
- Population
 - 164 patiënten in 3 rehabilitationcentra (DuFScoF)



Outcome variables

- Presence of fecal impaction
- Moment of fecal impaction
 - Day after admittance
 - Within a month after admittance
 - 1-3 months after admittance
 - > 3 months after admittance



Causal variables

- Demographic data incl. SCI characteristics (ASIA)
- Time since SCI
- Total time of rehabilitation
- Interventions of the guideline
- Use of opioids and/or anticholinergics

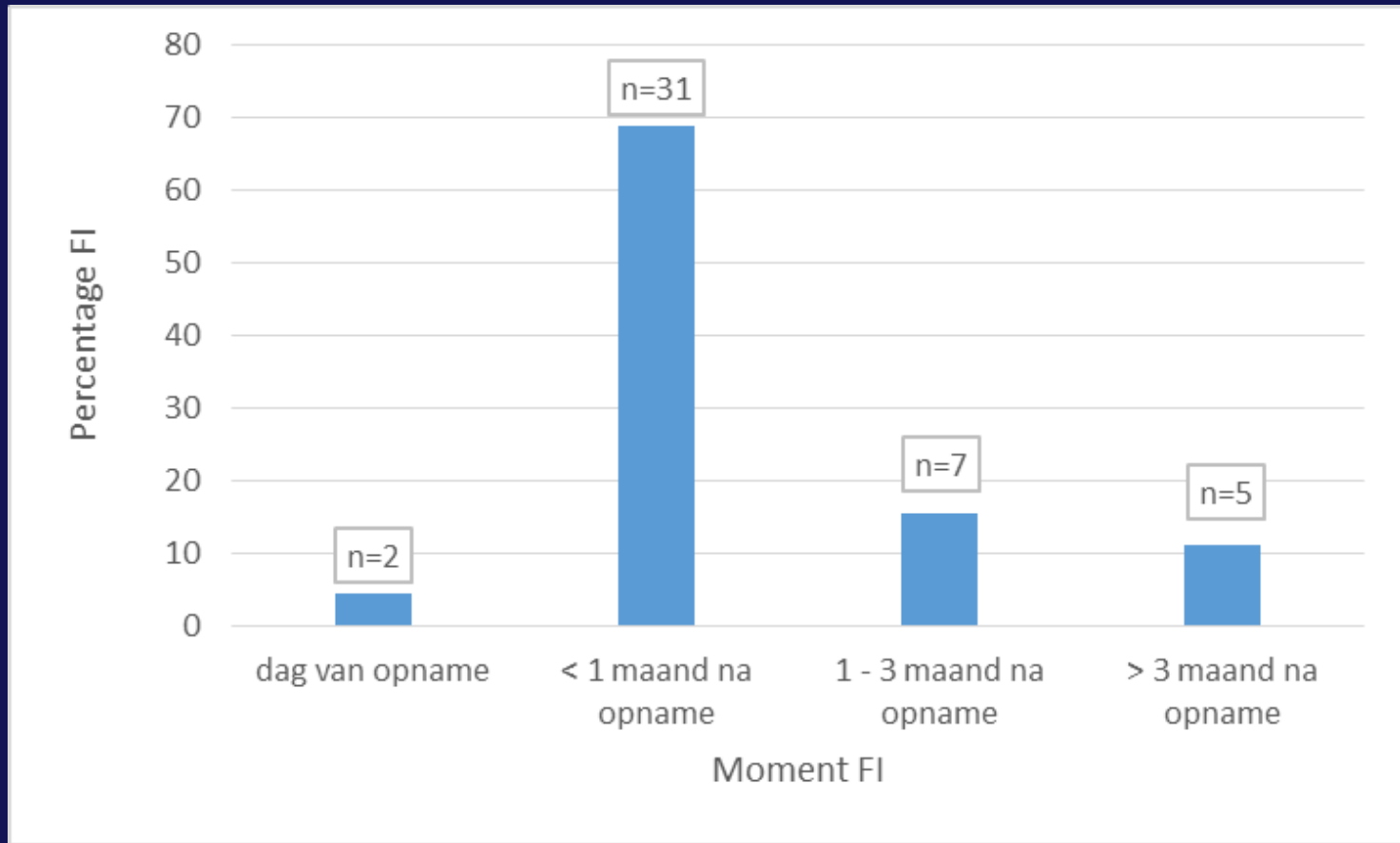


Demographic data

Characteristics	n	%	Mean \pm s.d (mediaan)
Sex			
men	103	62,8	
women	61	37,2	
Age (at admittance)			59,2 \pm 14,9 (61)
Level of injury			
cervical	64	39,0	
thoracic	71	43,3	
lumbal	29	17,7	
AIS			
A	25	15,2	
B	13	7,9	
C	30	18,3	
D	96	58,5	
Time since SIC at admittance (in weeks)			4,4 \pm 4,9 (2,9)
Total admittancetime (in weeks)			12,2 \pm 7,2 (11,1)



Results: Moment of fecal impaction





Results: Incidence of fecal impaction

Variable	Presence of FI* n (%)		Chi-kwadraat	Odds Ratio (OR)
	Ja (n=45)	Nee (n=119)	p-waarde	
Sex			0,529	0,793
men	30 (29,1)	73 (70,9)		
women	15 (24,6)	46 (75,4)		
Level of injury			0,372	
cervical	18 (28,1)	46 (71,9)		1,878
thoracic	22 (31,0)	49 (69,0)		2,155
lumbal	5 (17,2)	24 (82,2)		referentie
AIS			0,013	
A	11 (44,0)	14 (56,0)		3,184
B	7 (53,8)	6 (46,2)		4,728
C	8 (26,7)	22 (73,3)		1,474
D	19 (19,8)	77 (80,2)		referentie
Time since SCI at admittance			0,684	
<2 weeks	13 (26,5)	36 (73,5)		1,565
2-6 weeks	26 (28,3)	66 (71,7)		1,707
7-9 weeks	3 (42,9)	4 (57,1)		3,250
>9 weeks	3 (18,8)	13 (81,3)		referentie
Use of medication				
opioïds	20 (27,0)	54 (73,0)	0,915	0,973
anticholinergics	13 (43,3)	17 (56,7)	0,031	1,815
opioïds and anti-cholinergics	5 (41,7)	7 (58,3)	0,403	NT°



Results: interventions

- Magnesiumoxide given in different doses (68,9%) mostly lower than 3 t/day 1000mg as adviced in the guideline
- 88,9% treated with an enema inserted with a rectal tube
- Prunacolon was given more in patiënts with more episodes of fecal impaction



Conclusion and discusson

- Fecale impaction is seen more often in the first phase of rehabilitation
- Patiënts with an SCI grade AISA A or B are more at risk to develop fecal impaction
- The risk for developing fecal impaction seems to be higher in patiënts treated with anticholinergics
- 35 patiënt (77,8%) were not treated as adviced in the guideline bowelmanagement



Recommendations

- We have to be alert at symptoms of fecal impaction especially early in rehabilitation and in patients with a more complete laesion
- When anticholinergics are prescribed there the bowel management needs extra attention
- More research has to be done at this topic
- The guideline bowelmanagement needs an update

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