Peri-operative pharmacy services and the enhanced recovery pathway
25 -27TH MARCH 2021
Hôpitaux universitaires Paris-Sud
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Disclosure

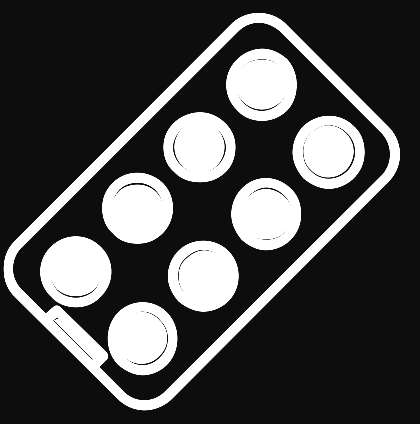
Relevant Financial Relationship List: None

Off-Label Investigational Uses : None

Learning Objective

How to implement clinical pharmacy services in a peri operative setting ?

SHOULD PHARMACISTS FOCUS ON PATIENTS WITH DIRECT ORAL ANTICOAGULANTS ?



YES

NO

CAN CLINICAL PHARMACY BE ANTICIPATED ?

YES

NO

CAN PHARMACISTS RELY ON INFORMATION SYSTEMS TO EVALUATE THEIR PRACTISES ?

YES

NO

Antoine Béclère

Hospital pharmacy ward, Hauts-de-Seine, France.

Head of Pharmacy : Dr Roy S.

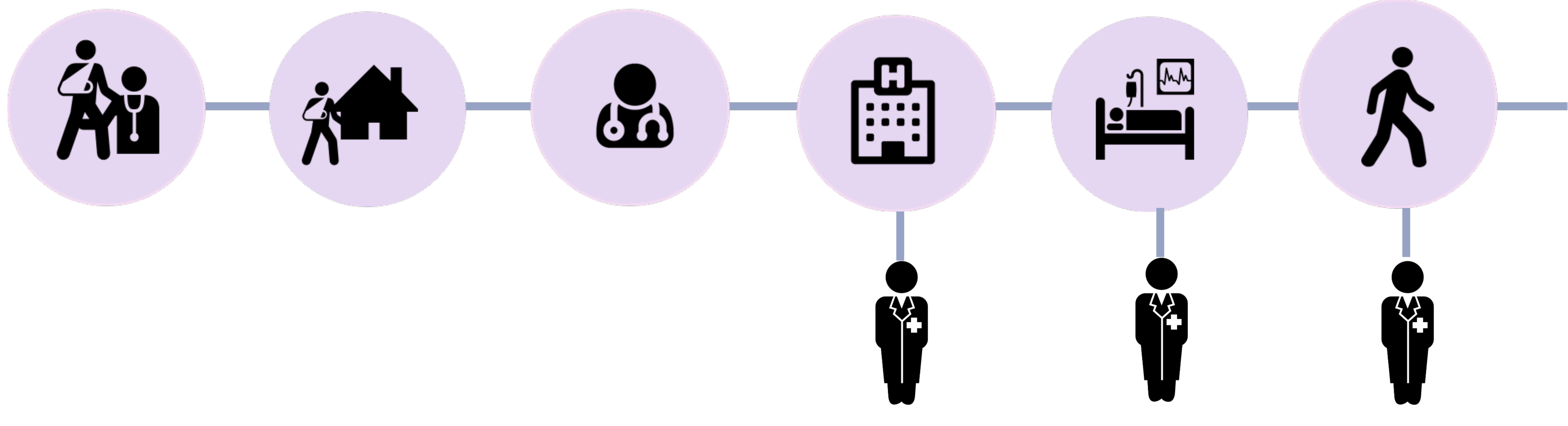
395

6 + 4

Plan

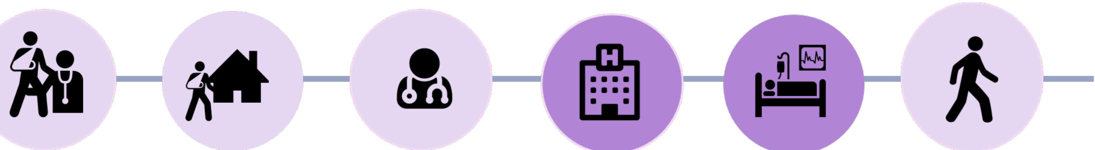
BPMH before admission

Focusing on discharge



How did it work ?

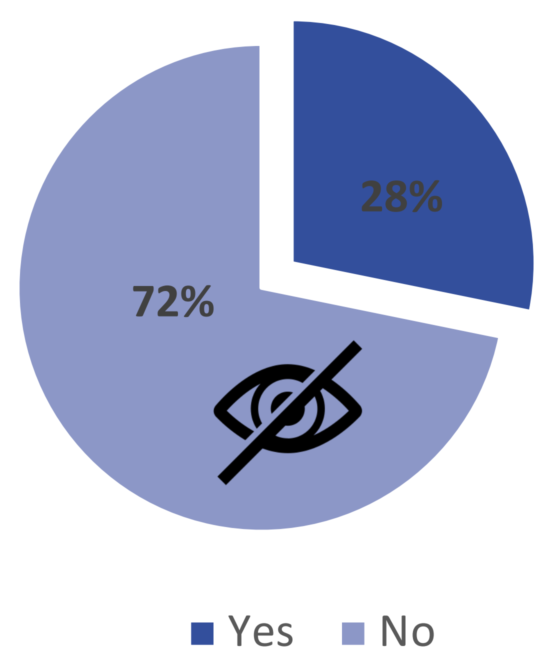
Why did we modify our process?



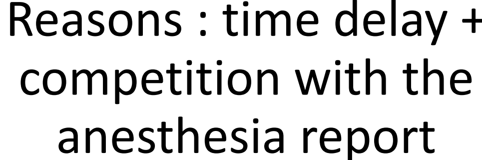
2017 - Reviewing utilization of BMPH

149 patients

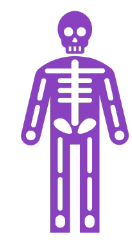
Consultation rate



What did we learn ?



Reasons : time delay + competition with the anesthesia report



Discrepancies between the two sources for 70% of the patients.

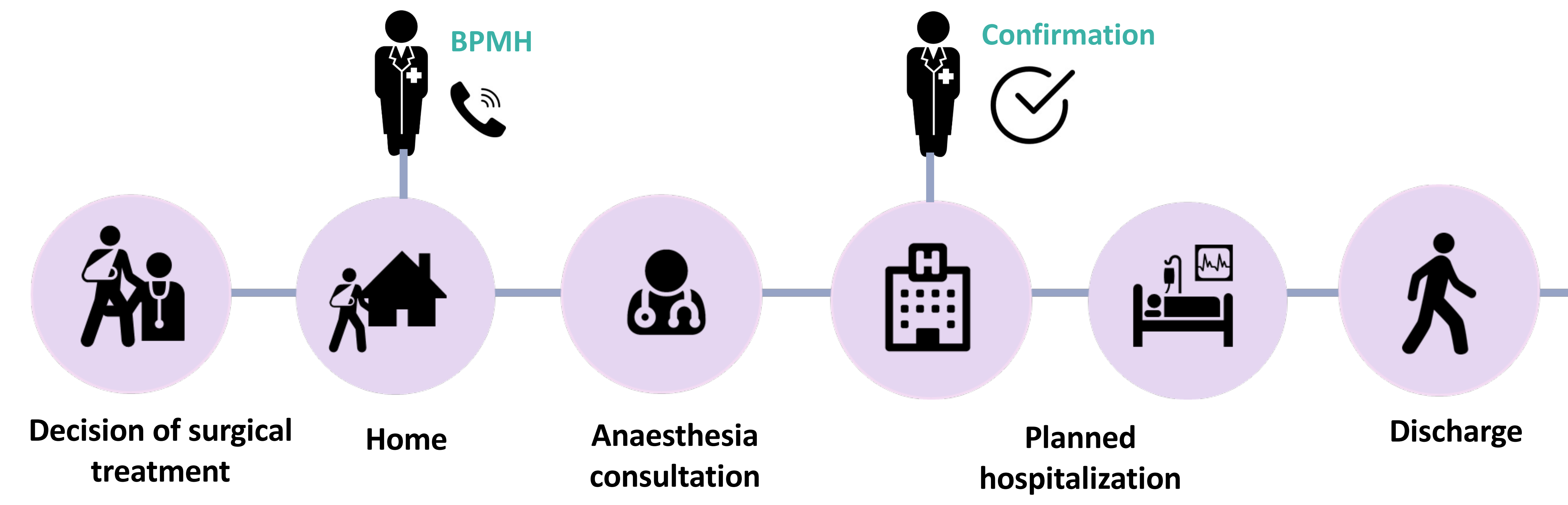
40,4% of UMD with a moderate or serious clinical impact

What did we need ?

STRONG EXPERIENCE IN CLINICAL PHARMACY

STRONG RELATIONSHIP

CONTINUOUS DISCUSSION WITH THE SURGICAL TEAM OVER THE YEARS

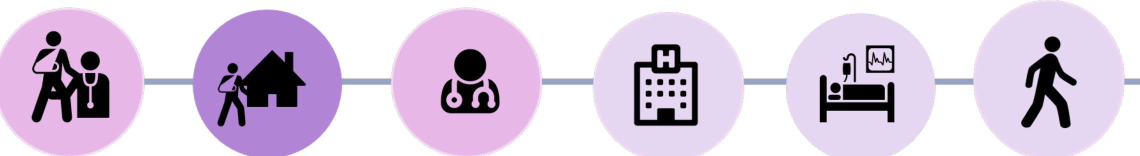


How is it done now?

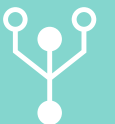
Take home message

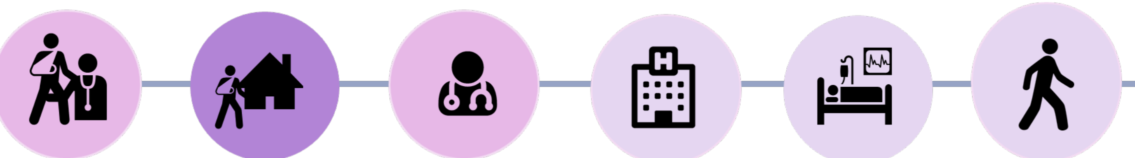
Evaluate your practices to make them evolve

Always question yourself



Making of BPMH before admission

1.  Selecting patients through ORBIS ®: Anaesthetist's meeting planning
2. Calling patients : phone interview
3. Gathering information : pharmaceutical validation
4. BPMH posted online (ORBIS®)



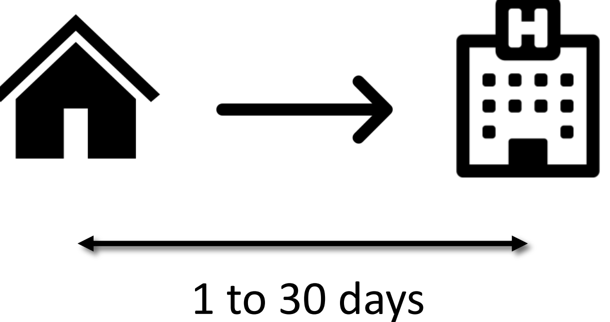
During the call

Remind patients to bring their prescriptions

Pack personal treatment if unavailable

Answer questions

Checking accuracy upon admission



1 to 30 days

On admission : Is there any modification ? : ☐ yes ○ no Date :

Source : .... Visa :

Study : material and methods

- Antoine Beclere Hospital
- 6 months
- Orthopaedic and visceral surgery

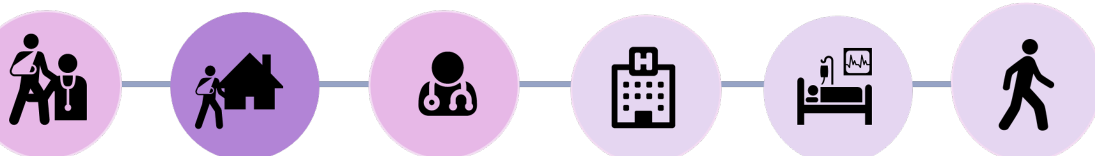
Improving the integration of pharmaceutical care service in surgery wards

Consultation rate

Anaesthetist

Medical and paramedical staff

- Factors influencing consultation?
- Patient satisfaction
- Assessing the process



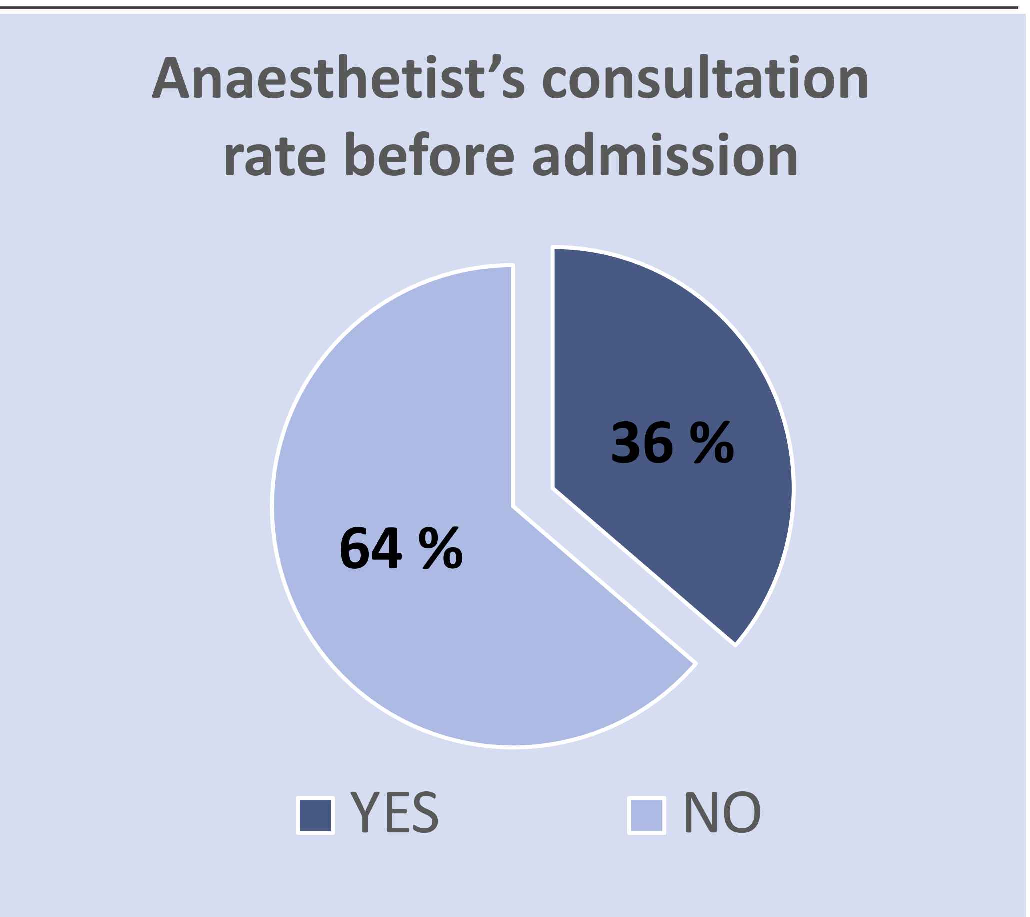
Results : process and on admission

250 patients

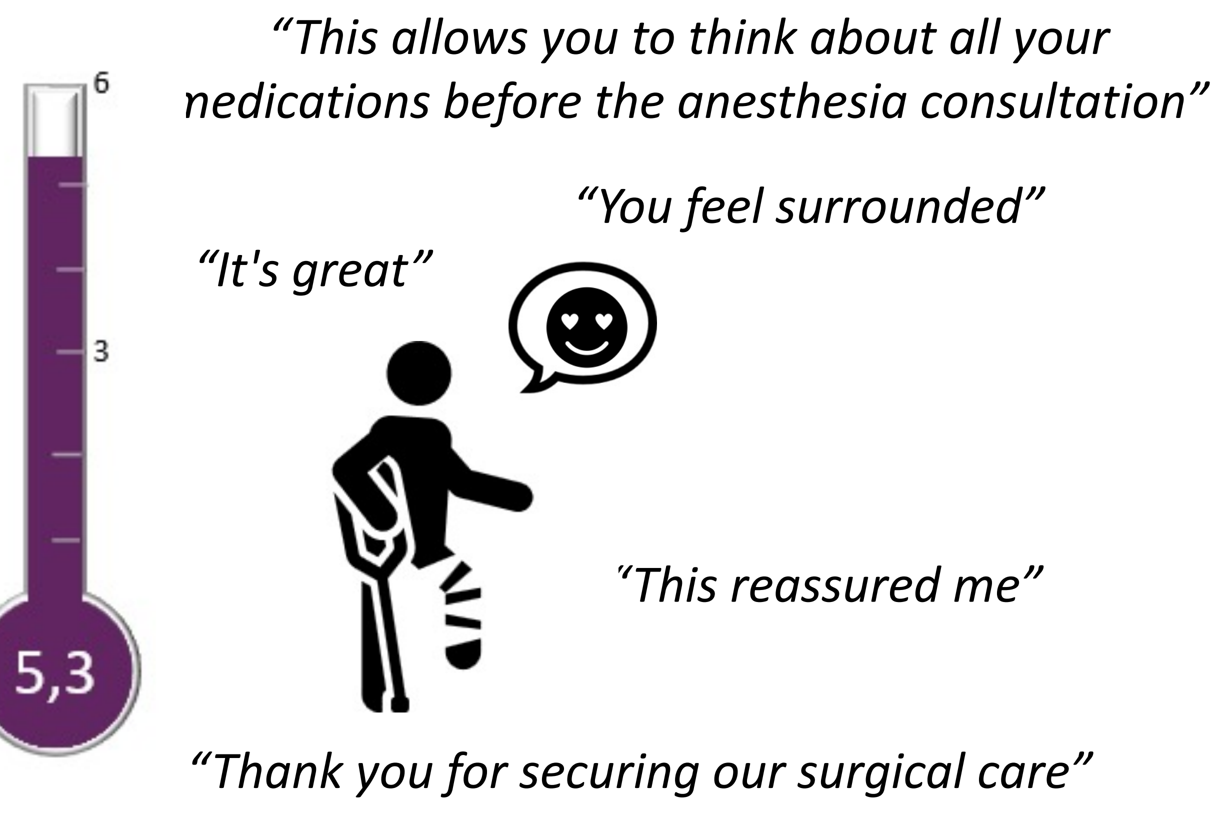
124 **126**

Age = 59 +/- 17,6 yo

Lenght of stay = 7,4 days
Mean number of medicines = 5
Sources = 3
Calls = 1,58 +/- 0,81
Modification rate upon admission = 16%



Results : hospitalisation and discharge



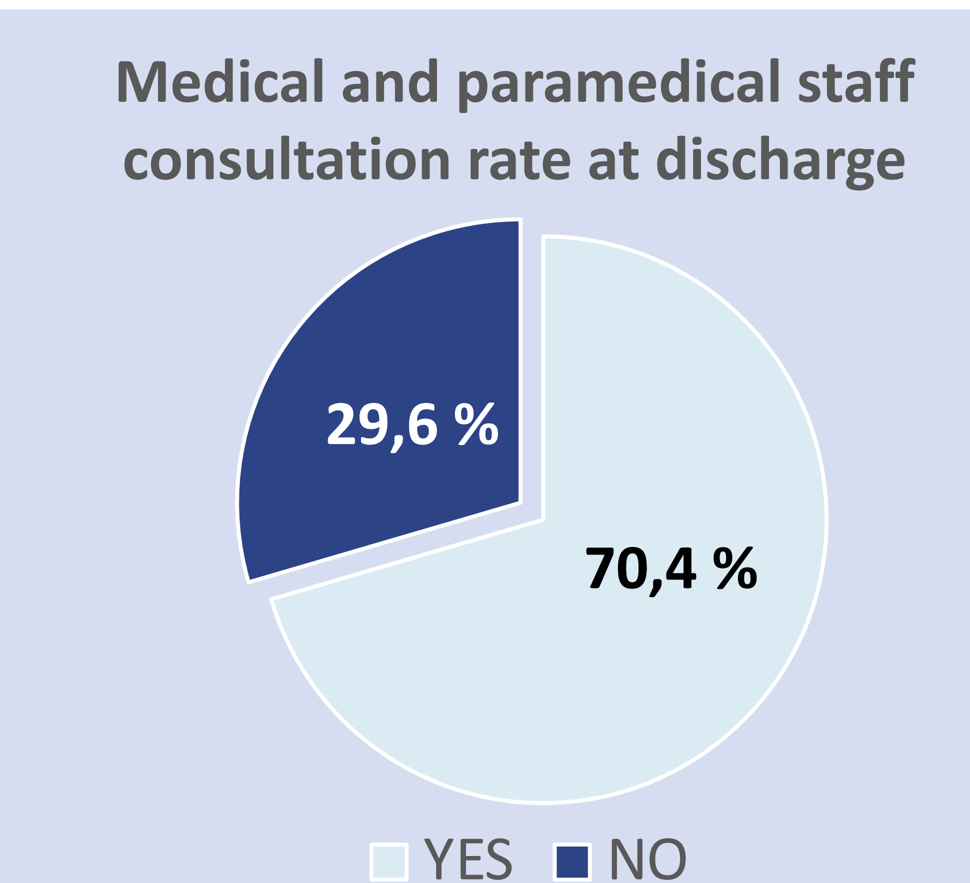
“This allows you to think about all your medications before the anesthesia consultation”

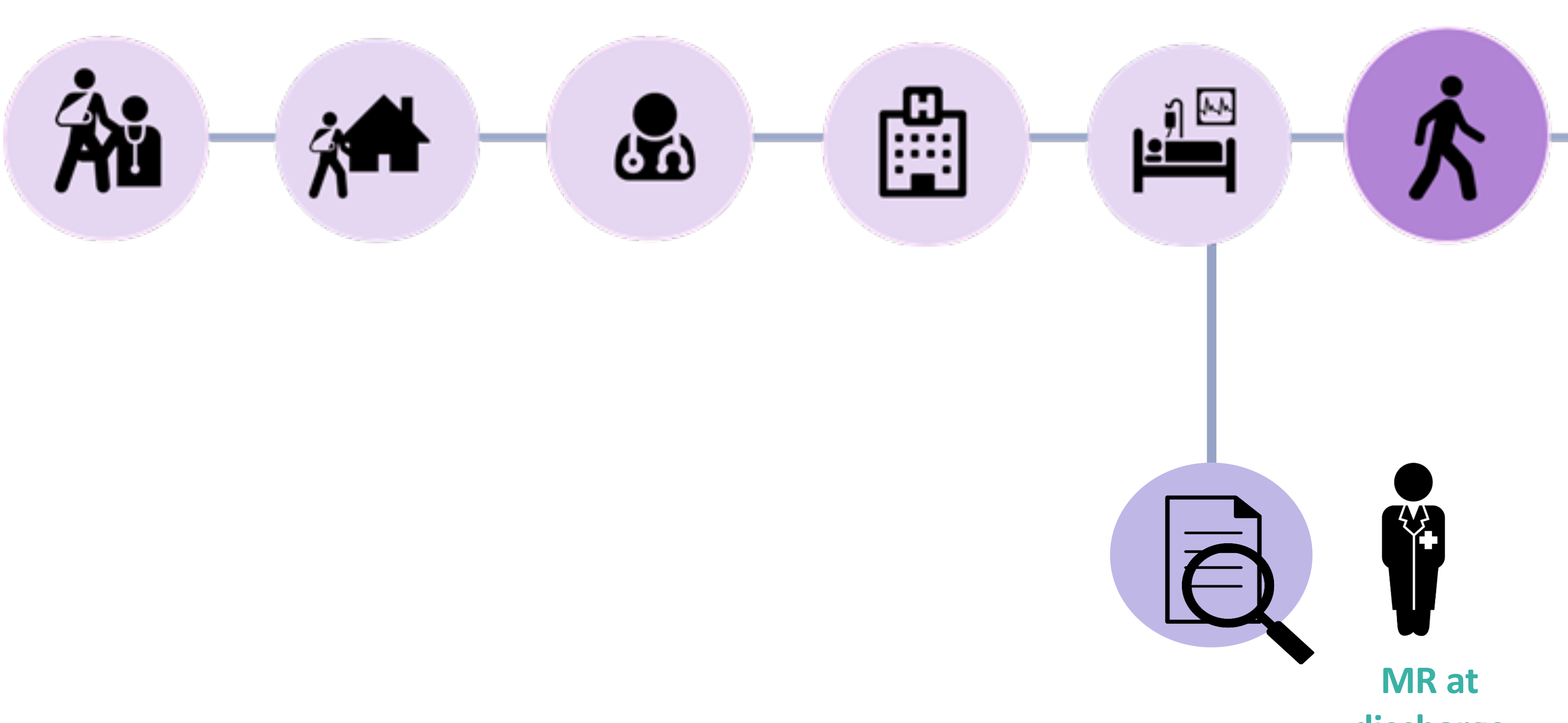
“You feel surrounded”

“It's great”

“This reassured me”

“Thank you for securing our surgical care”



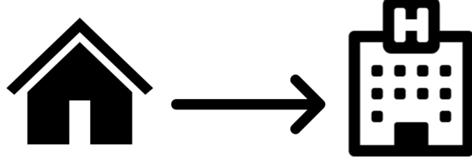


Discharge

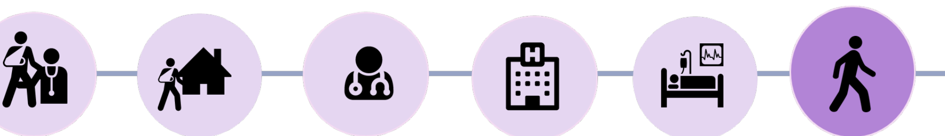
Why target discharge + anticoagulants?

Valuable

Retrospective study from Jan 2017 to Feb 2018 on 93 patients



Study found :
9 rehospitalisations attributable to thromboembolic events
+ **mandatory discontinuity of treatment during surgery**



How did we focus on anticoagulants ?

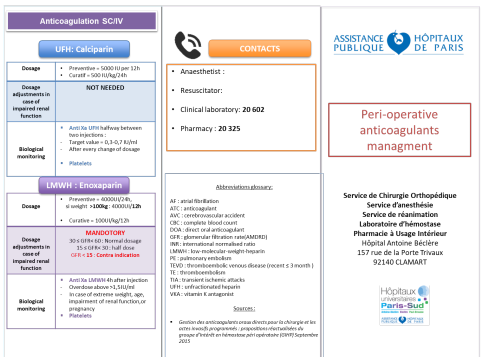
Working together → Assessing the needs

Work group

- **Surgeons**
- **Pharmacist**
- **Anesthesiologist**
- **Resuscitator**

→ Multidisciplinary agreement on recommandation

Tools for assisting rational prescription



Anticoagulation SC/IV

UFH: Calciparin

Dosage	• Preventive = 5000 IU per 12h • Curatif = 500 IU/kg/24h
Dosage adjustments in case of impaired renal function	**NOT NEEDED**
Biological monitoring	▪ **Anti Xa UFH** halfway between two injections : - Target value = 0,3-0,7 IU/ml - After every change of dosage ▪ **Platelets**

LMWH : Enoxaparin

Dosage	• Preventive = 4000UI/24h, si weight **>100kg** : 4000UI/**12h** • Curative = 100UI/kg/12h
Dosage adjustments in case of impaired renal function	**MANDOTORY** 30 ≤ GFR< 60 : Normal dosage 15 ≤ GFR< 30 : half dose GFR **< 15 : Contra indication**
Biological monitoring	▪ **Anti Xa LMWH** 4h after injection - Overdose above >1,5IU/ml - In case of extreme weight, age, impairment of renal function,or pregnancy ▪ **Platelets**

CONTACTS

- Anaesthetist :
- Resuscitator:
- Clinical laboratory: **20 602**
- Pharmacy : **20 325**

Abbreviations glossary:

AF : atrial fibrillation
ATC : anticoagulant
AVC : cerebrovascular accident
CBC : complete blood count
DOA : direct oral anticoagulant
GFR : glomerular filtration rate(AMDRD)
INR : international normalised ratio
LMWH : low-molecular-weight-heparin
PE : pulmonary embolism
TEVD : thromboembolic venous disease (recent ≤ 3 month)
TE : thromboembolism
TIA : transient ischemic attacks
UFH : unfractionated heparin
VKA : vitamin K antagonist

Sources :

- *Gestion des anticoagulants oraux directs pour la chirurgie et les actes invasifs programmés : propositions réactualisées du groupe d'Intérêt en hémostase péri opératoire (GIHP) Septembre 2015*

ASSISTANCE PUBLIQUE HÔPITAUX DE PARIS

Peri-operative anticoagulants managment

Service de Chirurgie Orthopédique
Service d'anesthésie
Service de réanimation
Laboratoire d'hémostase
Pharmacie à Usage Intérieur
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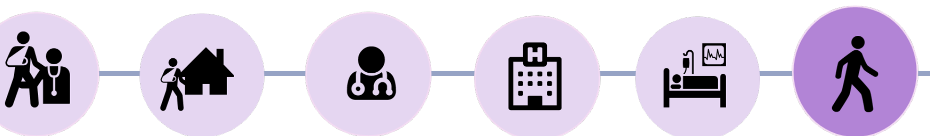
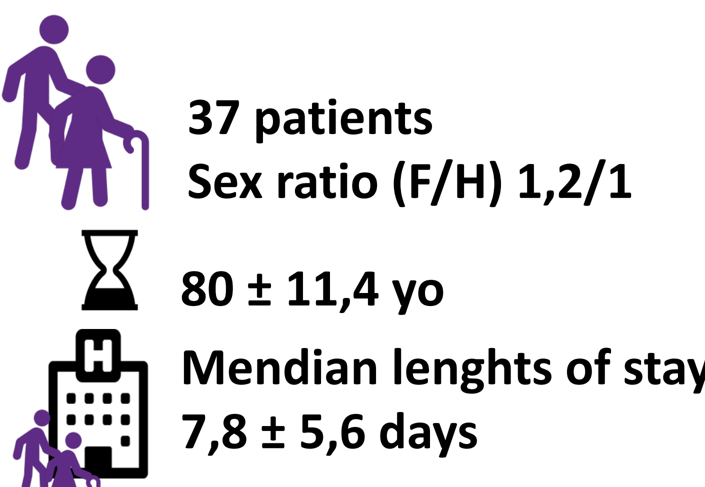
Hôpitaux universitaires Paris-Sud

Working together is key



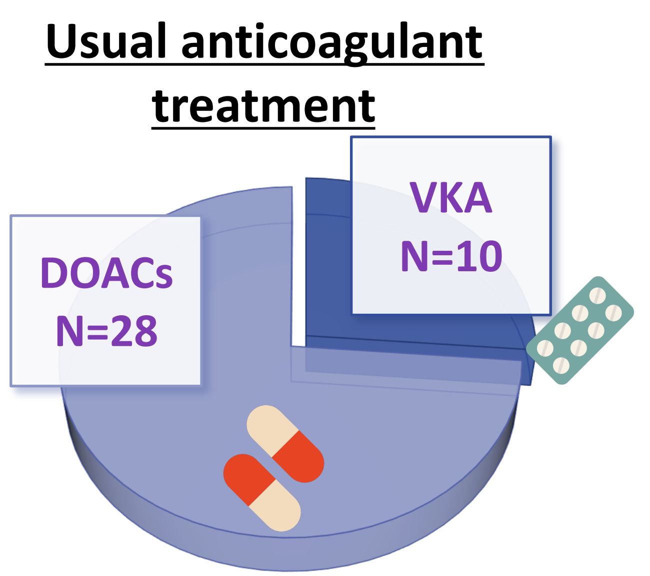
MR at discharge

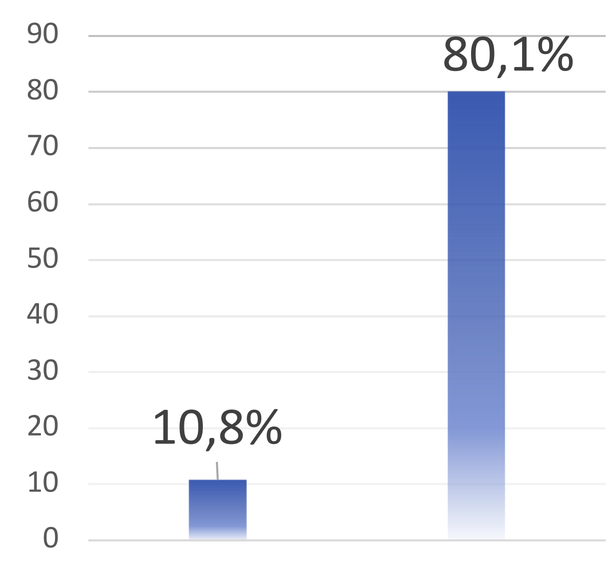


37 patients
Sex ratio (F/H) 1,2/1

80 ± 11,4 yo

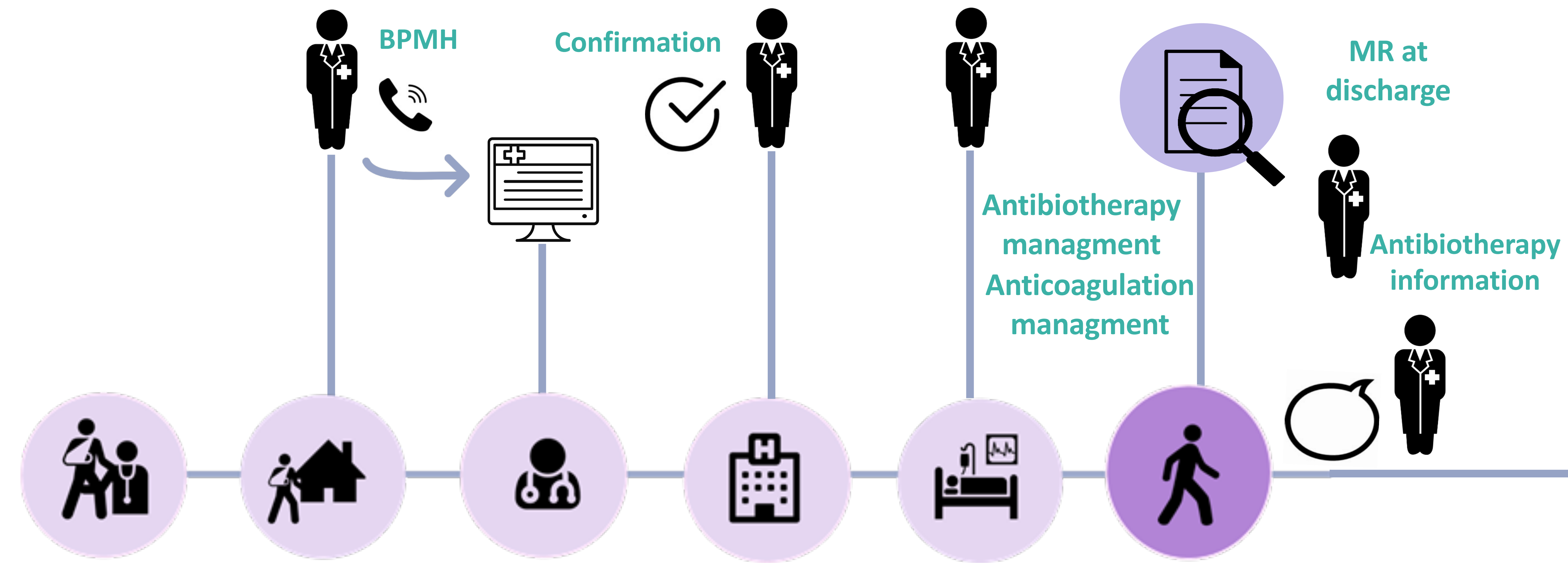
Mendian lenghts of stay
7,8 ± 5,6 days





p <0,05

Assess the impact of a proactive conciliation concerning the conformity of the discharge documents delivered to the patient.



Pharmaceutical care services in surgery wards

Always question yourself

Working together is key

Evaluate your practices to make them evolve

Conclusion

Thank you for your attention