PCSI 2024

Introducing DRGs in the French hospital home care sector

VINCENT PISETTA, CAROLINE MARTIN, RAPHAEL SIMON

PLAN

# OVERVIEW OF HOSPITAL HOME CARE

Hospital Home Care (HHC) in France

- **Hospital home care (HHC)**, transforms healthcare delivery by providing integrated hospital-level services in patients' homes

- In France, HHC represent approximately 2% (2b€) of the total budget for public hospital funding in France. Annually : around **230,000 hospital stays**, or **32 millions hospitalisation-days**

- HHC provides various services such as physician consultations, nursing interventions, diagnostic procedures, and therapeutic treatments, all delivered within the patient's home environment. HHC enhances patient comfort, expedites recovery, mitigates nosocomial infections, and optimizes resource allocation in healthcare delivery.

- HHC organizations are financed with **per-day tariff**, which evolves based on a combination of 3 collected variables : primary mode of care (*MPP*), associated mode of care (*MPA*) and Karnofsky index (*IK*). For a given stay, changes in the MPPxMPAxIK triplet trigger a subset of the stay called **sequence of care**.

- All HHC orgs must collect and send data for each patient stay to ATIH, including (but not limited to) diagnoses (ICD10-FR), procedures (CCAM), length of stay, age, etc … in addition to modes of care and Karnofsky Index

Objective : to build a DRG-like classification of HHC stays to better describe HHC activity in France, ahead of planned but not yet designed financing reforms.

THE HHC CLASSIFICATION

Grouper logic overview
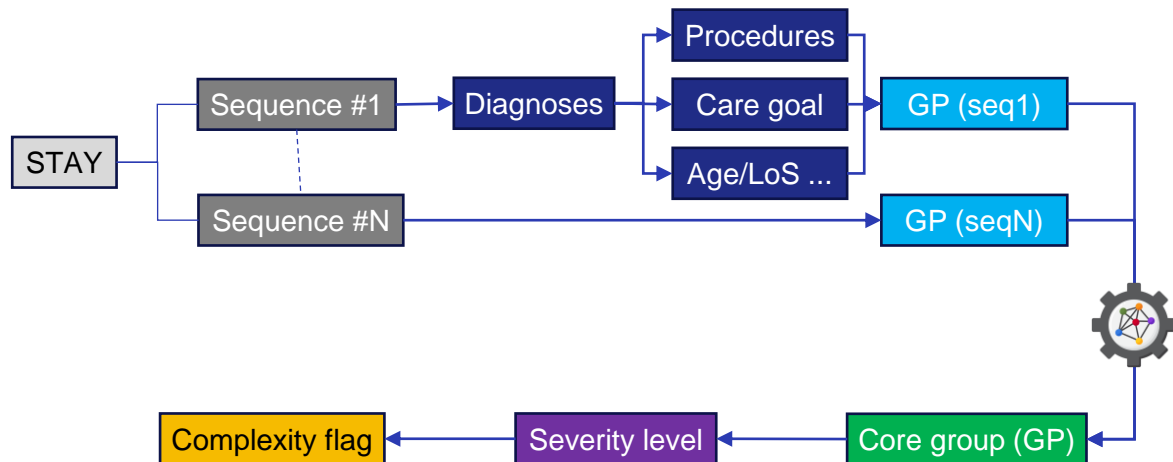
Nomenclature

XX YY 1 A

GP

GPS

GPSL

XX YY : Core group (FR : GP)
1 : case severity level
A : patient complexity flag

STAY → Sequence #1 → Diagnoses → Procedures / Care goal / Age/LoS ... → GP (seq1)

Sequence #N → GP (seqN)

Core group (GP) → Severity level → Complexity flag

Structure

BLOCK	# GP	# GPSL	% stays	%days
01 – Infancy	16	32	4%	3%
02 – Ante-partum	5	30	2%	2%
03 – Post-partum	4	24	3%	1%
04 – Palliative care	4	10	23%	30%
05 – Short stays	5	5	18%	1%
06 – Nutrition management	2	12	<1%	1%
07 – Pain management	2	12	3%	2%
08 – Rehabilitation	2	12	<1%	1%
09 – Skin conditions	12	72	10%	23%
10 – Cancers	18	108	18%	14%
11 – Infections	8	48	9%	6%
12 – Neurology conditions	5	30	3%	6%
13 – Orthopedics/traumas	4	24	2%	3%
14 – Organ failures	11	61	4%	6%
TOTAL	99	478	-	-

Each core group (GP) is subdivided into 3 case severity levels (1, 2 and 3) and 2 patient complexity levels (A and B)

Rule of thumb : 1 GP → 3*2 = 6 GPSL

All GPs are assigned to a block : higher level unit of description. Inside a block, groups are medically related

Exceptions to severity (→ all stay level 1)

- All groups from blocks « Infancy », « Palliative Care » and « Short stays »
- GP #1400 « multimorbid / geriatric patients »

Exceptions to complexity (→ all stay level A)

- All groups from block « Short stays »
- GP #1400 « multimorbid / geriatric patients »

Grouper errors

- GP # 99 : 00X1 « Others » (< 1% stays/days)

DEMONSTRATION

Male patient of 63 y.o – LoS : 29 days across 3 sequences – History of type 2 diabetes with vascular and nephronological complications. Hospitalised for a diabetic foot ulcer resulting in leg erysipelas + foot amputation. Admitted in HHC for follow-up treatment : IV antibiotics and wound dressings

Sequence #1 (4 days)   **IK**: 50
                             AVQ: 7

DP: A46 *Erysipelas*

MPP: 03 *IV treatment*

DCMPP
L97 *Non-pressure chronic ulcer of lower limb*

MPA: 09 *Complex dressings*

DCMPA
L97
Z894: *Acquired absence of toe(s), foot, and ankle*

DA
G632 *Diabetic polyneuropathy*
N083 *Glomerular disorders in diabetes mellitus*
E1120 *Type 2 diabetes mellitus with renal complications*
E1140 *(…) with diabetic neuropathy*
E1150 (…) *with diabetic peripheral angiopathy*

Sequence #2 (4 days)   **IK**: 50
                             AVQ: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 25 *Psychosocial care*

DCMPA: Z742 *Need for assistance at home and no other household member able to render care*

DA
G632
N083
E1120
E1140
E1150

Sequence #3 (21 days)   **IK**: 50
                             AVQ: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 00 *None*

DCMPA: ∅

DA
G632
N083
E1120
E1140
E1150

Lexicon

MPP : main mode of care
MPA : associated mode of care
DP : main diagnosis
DCMPP : diagnoses linked with main mode of care
DCMPA : diagnoses linked with associated mode of care
DA : secondary diagnoses
IK : Karnofsky Index
AVQ: Activities of daily life scale

Demonstration

Male patient of 63 y.o – LoS : 29 days across 3 sequences – History of type 2 diabetes with vascular and nephronological complications. Hospitalised for a diabetic foot ulcer resulting in leg erysipelas + foot amputation. Admitted in HHC for follow-up treatment : IV antibiotics and wound dressings

Sequence #1 (4 days)   **IK**: 50   **AVQ**: 7

DP: A46 *Erysipelas*

MPP: 03 *IV treatment*

DCMPP
L97 *Non-pressure chronic ulcer of lower limb*

MPA: 09 *Complex dressings*

DCMPA
L97
Z894: *Acquired absence of toe(s), foot, and ankle*

DA
G632 *Diabetic polyneuropathy*
N083 *Glomerular disorders in diabetes mellitus*
E1120 *Type 2 diabetes mellitus with renal complications*
E1140 *(…) with diabetic neuropathy*
E1150 (…) *with diabetic peripheral angiopathy*

0911 *Skin infections*

Sequence #2 (4 days)   **IK**: 50   **AVQ**: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 25 *Psychosocial care*

DCMPA: Z742 *Need for assistance at home and no other household member able to render care*

DA
G632
N083
E1120
E1140
E1150

0902 *Comp. diabetes wounds*

Sequence #3 (21 days)   **IK**: 50   **AVQ**: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 00 *None*

DCMPA: ∅

DA
G632
N083
E1120
E1140
E1150

0902 *Comp. diabetes wounds*

Lexicon

MPP : main mode of care
MPA : associated mode of care
DP : main diagnosis
DCMPP : diagnoses linked with main mode of care
DCMPA : diagnoses linked with associated mode of care
DA : secondary diagnoses
IK : Karnofsky Index
AVQ: Activities of daily life scale

Demonstration

Male patient of 63 y.o – LoS : 29 days across 3 sequences – History of type 2 diabetes with vascular and nephronological complications. Hospitalised for a diabetic foot ulcer resulting in leg erysipelas + foot amputation. Admitted in HHC for follow-up treatment : IV antibiotics and wound dressings

Sequence #1 (4 days)   IK: 50   AVQ: 7

DP: A46 *Erysipelas*

MPP: 03 *IV treatment*

DCMPP
L97 *Non-pressure chronic ulcer of lower limb*

MPA: 09 *Complex dressings*

DCMPA
L97
Z894: *Acquired absence of toe(s), foot, and ankle*

DA
G632 *Diabetic polyneuropathy*
N083 *Glomerular disorders in diabetes mellitus*
E1120 *Type 2 diabetes mellitus with renal complications*
E1140 *(…) with diabetic neuropathy*
E1150 (…) *with diabetic peripheral angiopathy*

Sequence #2 (4 days)   IK: 50   AVQ: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 25 *Psychosocial care*

DCMPA: Z742 *Need for assistance at home and no other household member able to render care*

DA
G632
N083
E1120
E1140
E1150

Sequence #3 (21 days)   IK: 50   AVQ: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 00 *None*

DCMPA: ∅

DA
G632
N083
E1120
E1140
E1150

0911 *Skin infections*   0902 *Comp. diabetes wounds*   0902 *Comp. diabetes wounds*

GP   0902
Complex diabetes wounds

ATIH

Demonstration

Male patient of 63 y.o – LoS : 29 days across 3 sequences – History of type 2 diabetes with vascular and nephronological complications. Hospitalised for a diabetic foot ulcer resulting in leg erysipelas + foot amputation. Admitted in HHC for follow-up treatment : IV antibiotics and wound dressings

Sequence #1 (4 days)

IK: 50
AVQ: 7

DP: A46 *Erysipelas*

MPP: 03 *IV treatment*

DCMPP
L97 *Non-pressure chronic ulcer of lower limb*

MPA: 09 *Complex dressings*

DCMPA
L97
Z894: *Acquired absence of toe(s), foot, and ankle*

DA
G632 *Diabetic polyneuropathy*
N083 *Glomerular disorders in diabetes mellitus*
E1120 *Type 2 diabetes mellitus with renal complications*
E1140 *(…) with diabetic neuropathy*
E1150 (…) *with diabetic peripheral angiopathy*

Sequence #2 (4 days)

IK: 50
AVQ: 7

DP: ~~L97~~

MPP: ~~09~~

DCMPP
~~L97~~
~~Z894~~

MPA: 25 *Psychosocial care*

DCMPA: Z742 *Need for assistance at home and no other household member able to render care*

DA
~~G632~~
N083
E1120
~~E1140~~
~~E1150~~

Sequence #3 (21 days)

IK: 50
AVQ: 7

DP: ~~L97~~

MPP: 09

DCMPP
~~L97~~
~~Z894~~

MPA: 00 *None*

DCMPA: ∅

DA
~~G632~~
N083
E1120
~~E1140~~
~~E1150~~

★ 0911 *Complex skin infections* ➡ 2

0902 *Other genital and urinary conditions* ➡ 1

Lexicon

MPP : main mode of care
MPA : associated mode of care
DP : main diagnosis
DCMPP : diagnoses linked with main mode of care
DCMPA : diagnoses linked with associated mode of care
DA : secondary diagnoses
IK : Karnofsky Index
AVQ: Activities of daily life scale

GP S   0902 2
Diabetes wounds

Demonstration

Male patient of 63 y.o – LoS : 29 days across 3 sequences – History of type 2 diabetes with vascular and nephronological complications. Hospitalised for a diabetic foot ulcer resulting in leg erysipelas + foot amputation. Admitted in HHC for follow-up treatment : IV antibiotics and wound dressings

Sequence #1 (4 days) IK: 50 AVQ: 7

DP: A46 *Erysipelas*

MPP: 03 *IV treatment*

DCMPP
L97 *Non-pressure chronic ulcer of lower limb*

MPA: 09 *Complex dressings*

DCMPA
L97
Z894: *Acquired absence of toe(s), foot, and ankle*

DA
G632 *Diabetic polyneuropathy*
N083 *Glomerular disorders in diabetes mellitus*
E1120 *Type 2 diabetes mellitus with renal complications*
E1140 *(…) with diabetic neuropathy*
E1150 (…) *with diabetic peripheral angiopathy*

Sequence #2 (4 days) IK: 50 AVQ: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 25 *Psychosocial care*

DCMPA: Z742 *Need for assistance at home and no other household member able to render care*

DA
G632
N083
E1120
E1140
E1150

Sequence #3 (21 days) IK: 50 AVQ: 7

DP: L97

MPP: 09

DCMPP
L97
Z894

MPA: 00 *None*

DCMPA: ∅

DA
G632
N083
E1120
E1140
E1150

★ YZ07 *Social/familial context* ➡ B

YZ12 *Psychosocial context* ➡ A

Lexicon

MPP : main mode of care
MPA : associated mode of care
DP : main diagnosis
DCMPP : diagnoses linked with main mode of care
DCMPA : diagnoses linked with associated mode of care
DA : secondary diagnoses
IK : Karnofsky Index
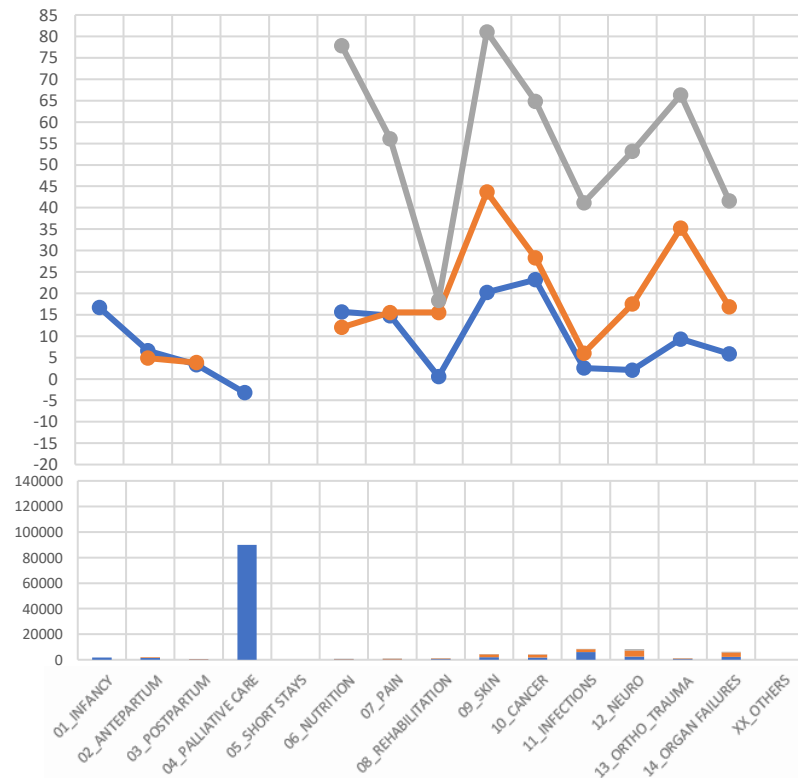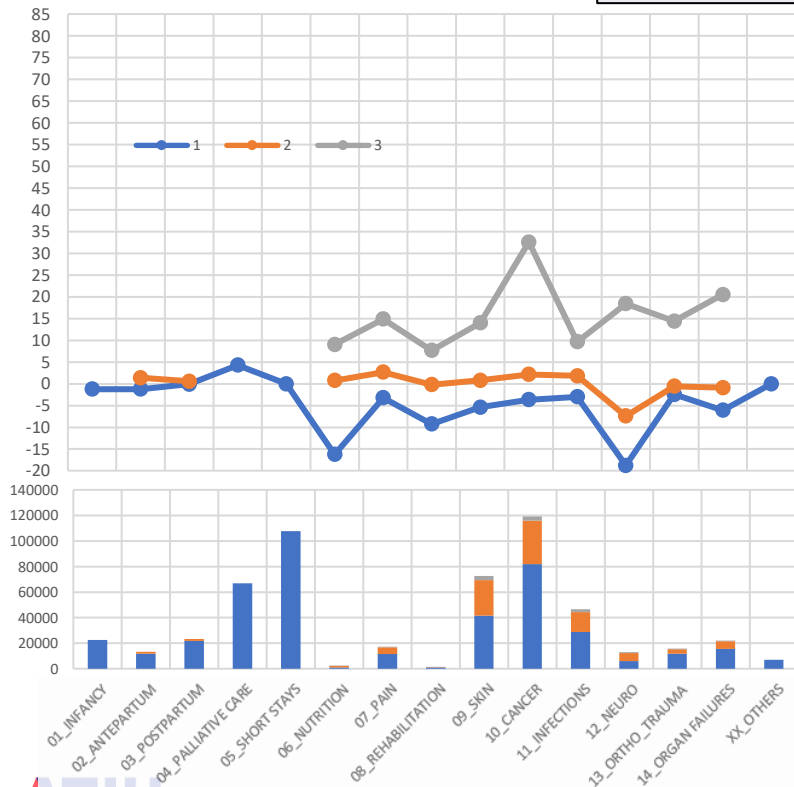AVQ: Activities of daily life scale

GP S L 0902 2 B
Diabetes wounds

STATISTICAL PERFORMANCES

Severity and complexity by block

Complexity = A

GP LoS residuals according to severity and complexity levels

Complexity = B

Evaluation

Classification	GP	GP + severity	GP + severity + complexity
R² - LoS	13,4%	15,0%	16,5%
R² - Costs	21,6%	24,2%	26,4%

Conclusions

R² on LoS and costs for the classification are similar to previous work on designing the classification for non-acute and rehabilitation hospitals (PCSI 2017), but still relatively far from the classification for acute hospitals (FR - *GHM*)

→ The variance in LoS/Costs is considerably higher for the types of conditions cared for in HHC, especially compared to acute conditions.

However, severity and complexity levels play a significant part in explaining LoS and costs.

NEXT STEPS

An ongoing national experimentation

- Starting from July 2023, all HHC stays are grouped using the HHC Grouper at ATIH

- HHC orgs can view and explore the results through ATIH softwares : OVALIDE and VisualGroupage

- Top-down and bottom-up approaches to evaluation :
    - ATIH studies changes in coding practices and casemix evolutions at the national scale
    - HHC orgs have access to various channels (online forum, quarterly meetings, official representatives) to share their individual experience with the classification and grouper logic

- Expected end : July 2024

- What's next :
    - Implementation ?
    - Wait for financing reforms

THANK YOU

CONTACT : RAPHAEL.SIMON@ATIH.SANTE.FR