

Le virage ambulatoire de pathologies hospitalières

Colloque du Réseau des Urgences genevois – Colloque de médecine de premier recours

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Les facteurs contributifs :

1. Les progrès technologiques en médecine
2. Les progrès des connaissances médicales (essais randomisés contrôlés, études de cohortes, établissement de scores de risque)
3. Les coûts de la santé : diminution des lits hospitaliers
4. Le mode de remboursement de l'activité hospitalière (DRGs) versus ambulatoire

Les facteurs contributifs (1) :

1. Les progrès technologiques en médecine:

- A - Appareils radiologiques :
MSCTs (Multislice CT) (ex embolies pulmonaires, coronaropathies)
- C - Nouveaux tests de labo et POCT
- D - Matériel utilisé pour les cathétérisations cardiaques, pour l'hémostase

Les facteurs contributifs (2) :

2. Les progrès des connaissances médicales

- a. Essais randomisés contrôlés, études de cohortes, « outcome research »
 - Pneumonie
 - Embolie pulmonaire
 - AIT

Les facteurs contributifs (2) :

2. Les progrès des connaissances médicales

b. Épidémiologie clinique :

- Analyses multivariées : facteurs prédictifs
- Établissement de scores

Research article

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A predictive score to identify hospitalized patients' risk of discharge to a post-acute care facility

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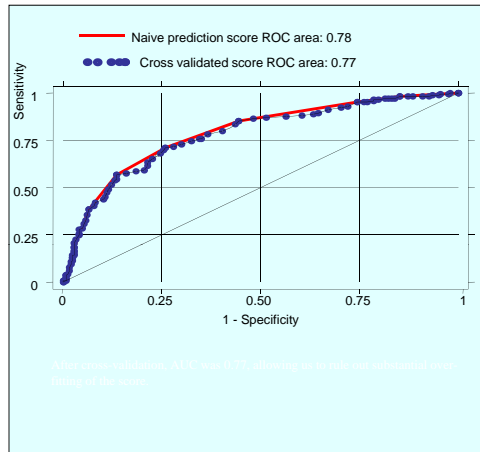
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Characteristics of the patients	Transfert 104(30%)	RAD 245(70%)	P value
Age: mean (± SD)	71 (14)	62 (18)	< 0.001
Number of patients living alone (%)	62 (60%)	101 (41%)	0.002
Number of patients whose partner provided home help (%)	27 (26%)	109 (44%)	0.001
Number of formal care providers at home: mean (± SD)*	2.0 (1.1)	1.6 (1.0)	0.04
Number of drugs prior admission: mean (± SD)	5.0 (3.3)	4.1 (3.2)	0.02
Number of patients admitted from other hospital services (%)	29 (28%)	28 (11%)	<0.001
Number of self-reported ADL [‡] disabilities upon admission: mean (± SD)	1.8 (2.2)	0.5 (1.2)	<0.001
Number of self-reported IAD [§] disabilities upon admission: mean (± SD)	2.5 (2.0)	1.1 (1.6)	<0.001
Number of active medical problems on admission: mean (± SD)	3.6 (1.5)	2.7 (1.3)	<0.001
Mini Mental State score on admission: mean (± SD)	24.5 (4.3)	25.7 (3.5)	0.05
Number of ADL disabilities on day 3: mean (± SD)**	3.8 (2.8)	1.2 (2.2)	<0.001

Construction du score J3

Variable	Logistic regression coefficient	95% CI	p	Point score
Active medical problems (per additional problem)	0.24	0.04 – 0.45	0.02	+1
Spouse not giving informal help	0.93	0.26 – 1.59	0.006	+4
Dependent for bath / shower	1.04	0.29 – 1.79	0.007	+4
Dependent for transfers bed/chair	1.05	0.28 – 1.83	0.008	+4
Dependent for drug management at home	0.92	0.19 – 1.64	0.01	+4

Evaluation de la performance du score



At a cut-point ≥ 8 , the score predicts discharge to a rehabilitation facility with a **sensitivity of 87%**, a **specificity of 63%**. It correctly classifies 71% of the cases.

A PREDICTION RULE TO IDENTIFY LOW-RISK PATIENTS WITH COMMUNITY-ACQUIRED PNEUMONIA

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N Engl J Med 1997;336(4): 243

TABLE 1. DEMOGRAPHIC AND CLINICAL CHARACTERISTICS OF THE PATIENTS IN THE DERIVATION AND VALIDATION COHORTS.*

CHARACTERISTIC	MEDISGROUPS DERIVATION COHORT (N = 14,199)	MEDISGROUPS VALIDATION COHORT (N = 38,039)	PNEUMONIA PORT VALIDATION COHORT		
			INPATIENTS (N = 1343)	OUTPATIENTS (N = 944)	TOTAL (N = 2287)
			percent		
Demographic factor					
Age <50 yr	16.7	15.5	25.4	67.4	42.7
Female sex	50.8	52.3	47.7	53.3	50.0
Nursing home resident	9.9	10.8	13.8	1.0	8.5
Coexisting conditions					
Congestive heart failure	28.0	28.1	16.8	3.0	11.1
Cerebrovascular disease	12.5	15.8	14.2	2.0	9.2
Neoplastic disease	10.1	15.3	8.7	1.7	5.8
Renal disease	3.4	5.9	10.3	1.5	6.7
Liver disease	1.1	1.6	2.2	0.3	1.4
Active use of injection drugs†	—	—	1.8	1.0	1.4
Alcohol abuse‡	—	—	12.0	2.0	7.9
Physical-examination findings					
Altered mental status	16.3	10.3	17.3	0.6	10.4
Pulse ≥ 125 /min	9.3	12.5	13.0	2.8	8.7
Respiratory rate ≥ 30 /min	29.9	37.4	21.9	1.2	13.3
Systolic blood pressure <90 mm Hg	9.3	11.5	3.4	0.4	2.1
Temperature <35°C or ≥ 40 °C	3.7	4.0	2.3	0.5	1.6
Laboratory and radiologic findings					
Blood urea nitrogen ≥ 30 mg/dl (11 mmol/liter)	22.3	22.3	23.5	1.1	14.3
Glucose ≥ 250 mg/dl (14 mmol/liter)	9.6	11.2	6.6	0.7	4.2
Hematocrit <30%	10.8	11.9	10.0	1.2	6.3
Sodium <130 mmol/liter	7.7	6.5	6.1	0.7	3.9
Partial pressure of arterial oxygen <60 mm Hg†	28.1	26.2	34.5	0.7	20.6
Arterial pH <7.35	7.9	8.3	6.2	0.1	3.7
Pleural effusion	11.6	7.9	12.5	3.8	8.9

*Since it was not possible to distinguish missing and normal data in the MedisGroups derivation and validation cohorts, the proportions in this table reflect the number of patients with each finding divided by the total number of patients in each cohort.

†Data on the prevalence of these conditions were not available in the two MedisGroups cohorts.
‡In the Pneumonia PORT cohort study, an oxygen saturation of less than 90 percent on pulse oximetry or intubation before admission was also considered abnormal.

Pneumonia Severity Index Step 2: risk factors and assigned points

Risk factors	Points
Demographic factors	
Age for a man	Age (in years)
Age for a woman	Age (in years) - 10
Nursing home resident	+10
Coexisting illnesses	
Neoplastic disease (active)	+30
Chronic liver disease	+20
Heart failure	+10
Cerebrovascular disease	+10
Chronic renal disease	+10
Physical examination findings	
Altered mental status	+20
Respiratory rate ≥ 30 /minute	+20
Systolic blood pressure ≥ 90 mmHg	+20
Temperature <35°C or ≥ 40 °C	+15
Pulse ≥ 125 beats/minute	+10
Laboratory and radiographic findings	
Arterial pH <7.35	+30
Blood urea nitrogen ≥ 30 mg/dl (11 mmol/L)	+20
Sodium <130 mmol/L	+20
Glucose ≥ 250 mg/dl (14 mmol/L)	+10
Hematocrit <30 percent	+10
Partial pressure of arterial oxygen <60 mmHg*	+10
Pleural effusion on chest x-ray	+10

* Or an oxygen saturation of <90 percent on pulse oximetry.
Adapted from: Fine, MJ, Auble, TE, Yealy, DM, et al. N Engl J Med 1997; 336:243.

PSI class and mortality in the Pneumonia PORT validation cohort

Class	Points	Mortality, percent
I	No predictors	0.1
II	≤70	0.6
III	71-90	0.9
IV	91-130	9.3
V	>130	27.0

PSI: Pneumonia Severity Index; PORT: Patient Outcomes Research Team.

Data from: Fine MJ, Auble TE, Yealy DM. A prediction rule to identify low-risk patients with community-acquired pneumonia. *N Engl J Med* 1997; 336:243.

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Liste (on exhaustive) de pathologies médicales avec virage ambulatoire (1)

1. Asthme
2. COPD
3. AIT
4. TVP / Embolie pulmonaire
5. Douleurs rétrosternales

Liste (on exhaustive) de pathologies avec virage ambulatoire (2)

6. Investigations cardiaques et cardiologie invasive.
7. Fièvre chez patients neutropéniques
8. Sevrage alcool ou autre dépendance
9. Prise en charge des maladies psychiatriques
10. Réhabilitation cardiovasculaire, gériatrique

Liste (on exhaustive) de pathologies chirurgicales avec virage ambulatoire :

1. Cataracte
2. Varices
3. Hernies inguinales
4. Chirurgie laparoscopique (y.i., hystérectomie)
5. etc

Impact du virage ambulatoire sur les coûts de la santé globaux :

?

Conclusions:

- 1) Les causes du virage ambulatoire sont multifactorielles.
- 2) Impact sur les coûts au niveau sociétal ?
- 3) La responsabilité du MPR dans les prises en charge de patients complexes est accrue
- 4) Félicitations d'être ici ce jour
- 5) Nous espérons être à la hauteur