

Accidents vasculaires cérébraux

Délai d 'admission

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Introduction

Réduction du délai d 'admission

Peut éviter une récurrence précoce

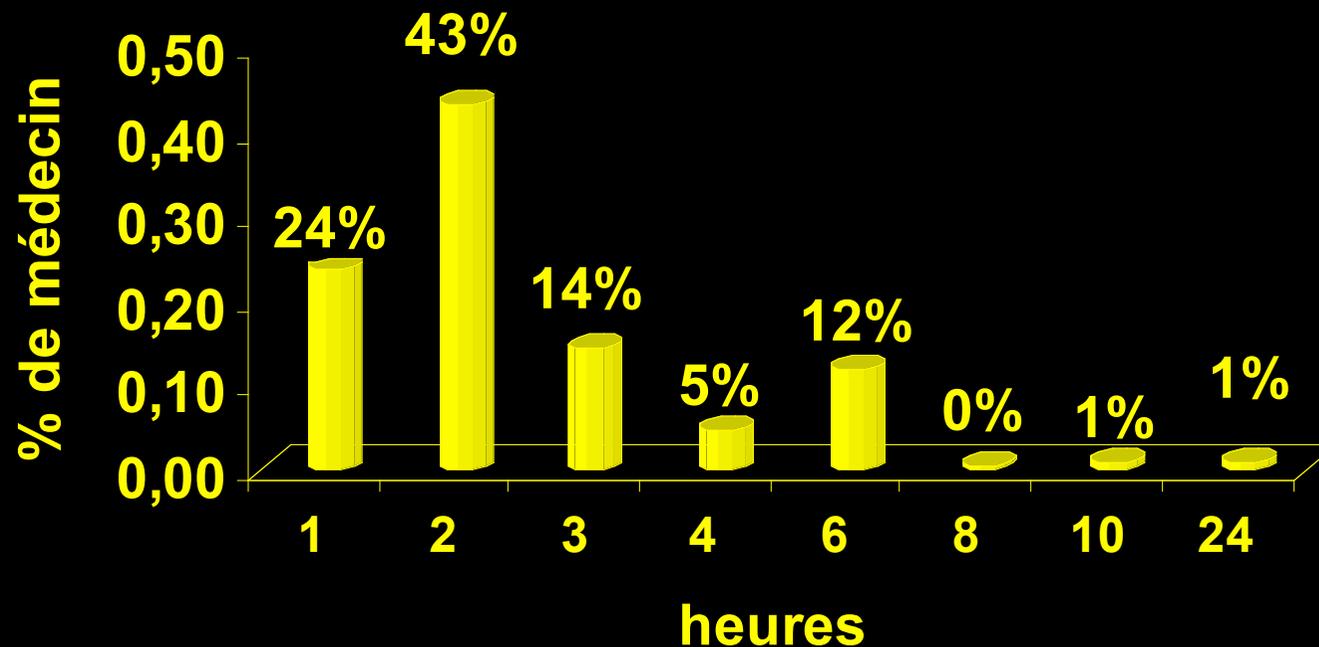
Prévenir ou traiter rapidement les complications précoces

Ttt thrombolytique

Débuter le bilan étiologique

280 médecins généralistes stéphanois

délai de prise en charge des AVCc



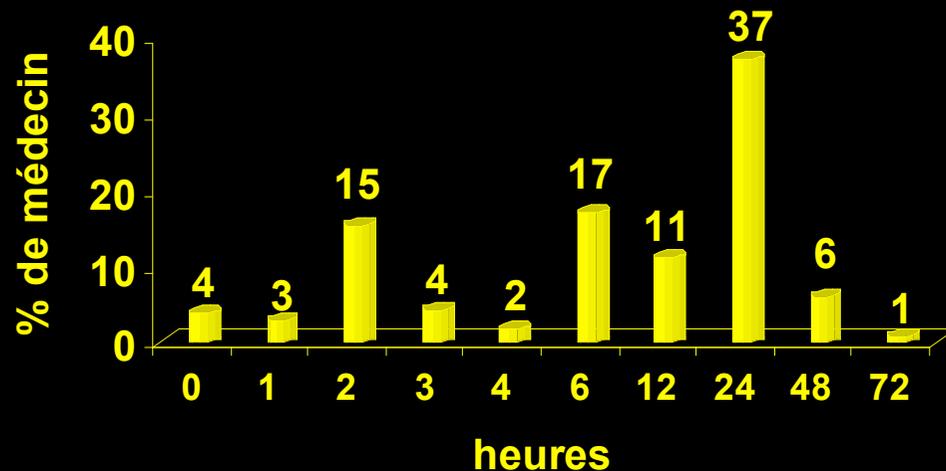
Délai médian de déplacement $1,5 \pm 1,1$ heures

hospit. systématique pour 94 % des médecins

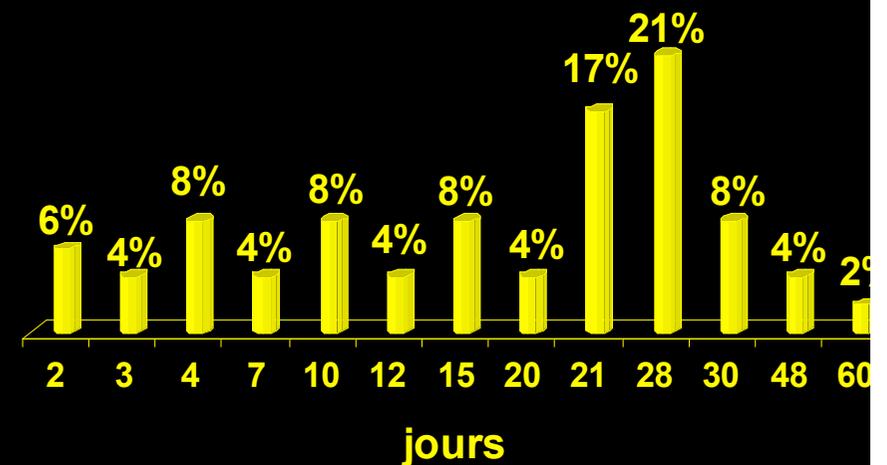
hospit.entre la 2ème et la 6ème heure pour 80 % des médecins

Stratégie diagnostique des AIT

délai de prise en charge des AIT



délai de consultation spécialisée



Délai moyen de déplacement 15 ± 13 heures

hospitalisation systématique pour 3 % des médecins

Bilan TDM + TSA < 60 %

consultation neurologue pour 20 % des médecins

Service d'accueil des urgences

557 patients (12 mois consécutifs en 2004) (id 2006)

264 hommes, 293 femmes

Age moyen 73 ± 13 ans

Délai médian d'admission: 10 heures [2h45;20h]

| | Accident vasculaire cérébral | | | Autres diagnostic |
|--|-------------------------------------|---------------------------------|------------------------|--------------------------|
| | Ischémique transitoire n = 86 | Ischémique constitué n = 345 | Hémorragique n = 58 | Autres n = 68 |
| Age moyen (an) (min-max) (Mini - maxi) | 72 ± 13 (43-94) | 75 ± 12 (22-98) | 69 ± 15 (24-97) | 68 ± 17 (28-93) |
| Hommes/Femmes (%) | 56 / 44 | 47 / 53 | 52 / 48 | 37 / 63 |
| Modalité d'admission | | | | |
| Médecin traitant n (%) | 60 (70) | 254 (74) | 29 (50) | 43 (63) |
| Transport préhospitalier | | | | |
| Ambulance privée n (%) | 54 (62) | 239 (69) | 27 (46) | 38 (56) |
| Ambulance pompiers n (%) | 6 (7) | 30 (9) | 10 (17) | 8 (12) |
| Ambulance médicalisée n (%) | 4 (5) | 28 (8) | 16 (28) | 5 (7) |
| Propre moyen n (%) | 22 (26) | 48 (14) | 5 (9) | 17 (25) |
| Délai médian d'admission (h) [interquartile] | 10 [2,5-19] | 11 [3-21] | 9 [2-20] | 12 [3-19] |
| Délai d'admission (%) | | | | |
| < 3h | 30% | 26% | 29% | 27% |
| 3 - 6h | 16% | 13% | 14% | 12% |
| > 6h | 54% | 61% | 57% | 61% |
| Horaire d'admission (%) | | | | |
| 0 - 4h | 3 | 4 | 7 | 0 |
| 4 - 8h | 5 | 3 | 10 | 3 |
| 8 - 12h | 26 | 37 | 23 | 34 |
| 12 - 16h | 36 | 29 | 24 | 31 |
| 16 - 20h | 15 | 19 | 24 | 29 |
| 20 - 00h | 15 | 8 | 12 | 3 |

Les délais d'admission: rôle de la structure

597 patients, 3 années consécutives, admis en UNV

10 000 km² 1 500 000 habitants

TABLE 2. Time Intervals Before Treatment for Bern Patients, Non-Bern/–CT Patients, and Non-Bern/+CT Patients*

| Time Interval, Min (SD) | Bern | Non-Bern/ –CT | Non-Bern/ +CT | P† | P‡ | P§ |
|-------------------------|----------|------------------|------------------|------|--------|--------|
| Onset-to-door | 99 (63) | 127 (56) | 210 (66) | 0.02 | <0.001 | <0.001 |
| Onset-to-CT | 116 (57) | 166 (50) | 129 (65) | 0.02 | NS | 0.04 |
| Onset-to-arteriography | 198 (83) | 229 (44) | 277 (53) | NS | <0.001 | <0.001 |
| Door-to-arteriography | 109 (67) | 92 (45) | 69 (41) | NS | <0.001 | 0.01 |
| Onset-to-treatment | 234 (68) | 269 (42) | 302 (55) | NS | 0.002 | 0.03 |

+ 28

+ 111

+ 35

+ 68

*Bern patients were admitted directly to the inselspital. Non-Bern/–CT patients were referred from a community hospital without a CT scan. Non-Bern/+CT patients were referred from a community hospital after CT examination.

†Comparison of Bern patients and non-Bern/–CT patients; ‡Comparison of Bern patients and non-Bern/+CT patients; §Comparison of non-Bern/–CT patients and non-Bern/+CT patients.

Nedeltchev, Stroke 2003

Les délais d'admission: rôle du mode de transport

Etude Californienne: 1207 patients, 483 données manquantes

TABLE 3. Median Delay Times in Hours by Patient Attributes

| Variable (n=730) | Prehospital Delay,* h | ED Delay,† h | Total Delay, h |
|--------------------------------|-----------------------|---------------|----------------|
| Race | | | |
| White (83%) | 2.7 (1.3–6.1) | 1.1 (0.7–1.8) | 4.0 (2.2–8.2) |
| Black (13%) | 2.1 (1.0–6.9) | 1.4 (0.8–2.3) | 4.0 (2.2–8.8) |
| Sex | | | |
| Male (50%) | 2.4 (1.1–6.0) | 1.0 (0.7–1.8) | 3.8 (2.2–7.7) |
| Female | 3.0 (1.2–6.5) | 1.2 (0.7–1.9) | 4.2 (2.3–8.5) |
| Arrival by EMS | | | |
| Yes (57%) | 2.0 (1.0–4.6) | 1.0 (0.6–1.7) | 3.7 (2.0–6.3) |
| No | 3.9 (1.7–9.4) | 1.3 (0.8–2.2) | 5.7 (2.9–11.0) |
| Alone at onset | | | |
| Yes (34%) | 3.6 (1.7–7.8) | 1.2 (0.8–1.8) | 4.4 (2.8–9.3) |
| No | 2.1 (1.0–5.1) | 1.0 (0.6–1.8) | 3.5 (2.0–7.3) |
| Awakening with symptoms | | | |
| Yes (19%) | 5.5 (2.6–10.7) | 1.2 (0.8–2.2) | 7.7 (4.0–12.5) |
| No | 2.1 (1.0–5.0) | 1.1 (0.7–1.8) | 3.5 (2.0–6.5) |
| Elevated diastolic BP | | | |
| Yes (11%) | 2.0 (1.0–6.0) | 0.9 (0.6–1.5) | 3.4 (2.0–7.3) |
| No | 2.7 (1.2–6.3) | 1.2 (0.7–1.9) | 4.0 (2.3–8.5) |
| Hospital type | | | |
| Academic (37%) | 3.2 (1.3–8.1) | 1.2 (0.8–2.1) | 4.3 (2.5–11.0) |
| Other | 2.3 (1.0–5.9) | 1.0 (0.7–1.8) | 4.0 (2.1–7.5) |

Values are median (25th–75th percentile). BP indicates blood pressure.

*Symptom onset to ED arrival.

†ED arrival to CT scan completion.

Transport rapide

Rôle de l'entourage

Morris

Stroke 2000

Les délais d'admission: rôle du mode de transport

Etude Caroline du Nord: 617 patients

TABLE 3. Median (Interquartile Range) Delay Times by EMS Use

| Time Lapse | Total | EMS | | P ^a |
|---------------------------|------------------|------------------|-------------------|----------------|
| | | Yes | No | |
| Symptoms to arrival, h | 3.50 (1.40–9.10) | 2.85 (1.15–7.42) | 4.08 (1.70–10.97) | 0.002 |
| ≤2 h, % | 36.1 | 41.7 | 31.2 | 0.012† |
| ≤3 h, % | 47.3 | 52.2 | 43.0 | 0.035† |
| Arrival to EP, h | 0.31 (0.00–0.63) | 0.17 (0.03–0.40) | 0.50 (0.23–0.83) | 0.001 |
| Arrival to CT scan, h | 1.46 (1.00–2.18) | 1.27 (0.83–2.00) | 1.62 (1.18–2.33) | 0.001 |
| Arrival to neurologist, h | 2.43 (1.35–3.57) | 2.13 (1.17–3.27) | 2.73 (1.83–3.70) | 0.027 |

Values are median (interquartile range) or as indicated.

^aWilcoxon rank sum test, except where noted.

† χ^2 test.

Délai d'appel ?

Schroeder, Stroke 2000

Les délais d 'admission: autres facteurs influençants

Etude New Jersey (Lacy, Stroke 2001)

553 patients

32 % admis en 1h30 min

46 % ds les 3 heures

61 % ds les 6 heures

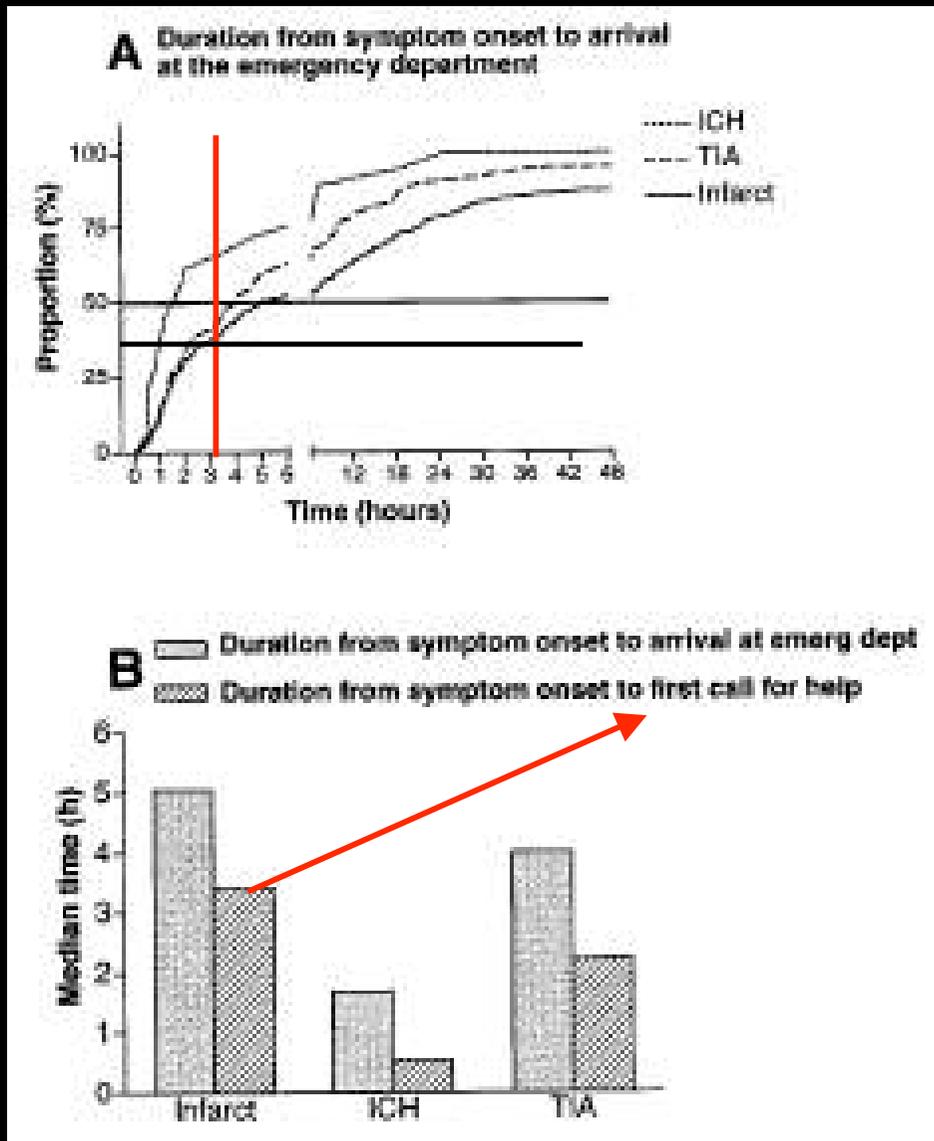
Facteurs en relation avec un délai court

Transport ambulance

Atcd cardiovasculaire

Les délais d'admission: facteurs influençants

329 patients, 15 hôpitaux suédois, délai médian 4,8 heures



Délais diminués si:

- déficit important
- patient avec entourage
- transport par ambulance
- structure neurovasc.

562 patients sur la période

Wester, Stroke 1999

Délais d'admission: effets des programmes d'information

Période 1985-87 / Période 1988-89 (Washington)

TABLE 1. Descriptive Data for Initial and Follow-up Studies

| Stroke type | No. patients | |
|--------------------------|---------------|-----------------|
| | Initial study | Follow-up study |
| Cerebral infarction | 187 | 159 |
| Stroke-in-evolution | 63 | 0 |
| Intracerebral hemorrhage | 40 | 30 |
| Total | 290 | 189 |

TABLE 3. Presentation Within 24 Hours for Patients With Cerebral Infarction

| Study | No. patients | | |
|------------|--------------|------------|-------|
| | ≤24 hours | >24 hours | Total |
| Initial* | 98 (39.2) | 152 (60.8) | 250 |
| Follow-up† | 136 (85.5) | 23 (14.5) | 159 |

Values in parentheses are percent.

*Includes stroke-in-evolution from initial study; results similar if stroke-in-evolution excluded.

†Significant difference by Fisher's exact test, $p < 0.00001$.

Alberts, Stroke 1992

Délais d'admission: effets des programmes d'information

5 hôpit., 160 833 habitants / 5 hôpit., 332 676 habitants (Texas)

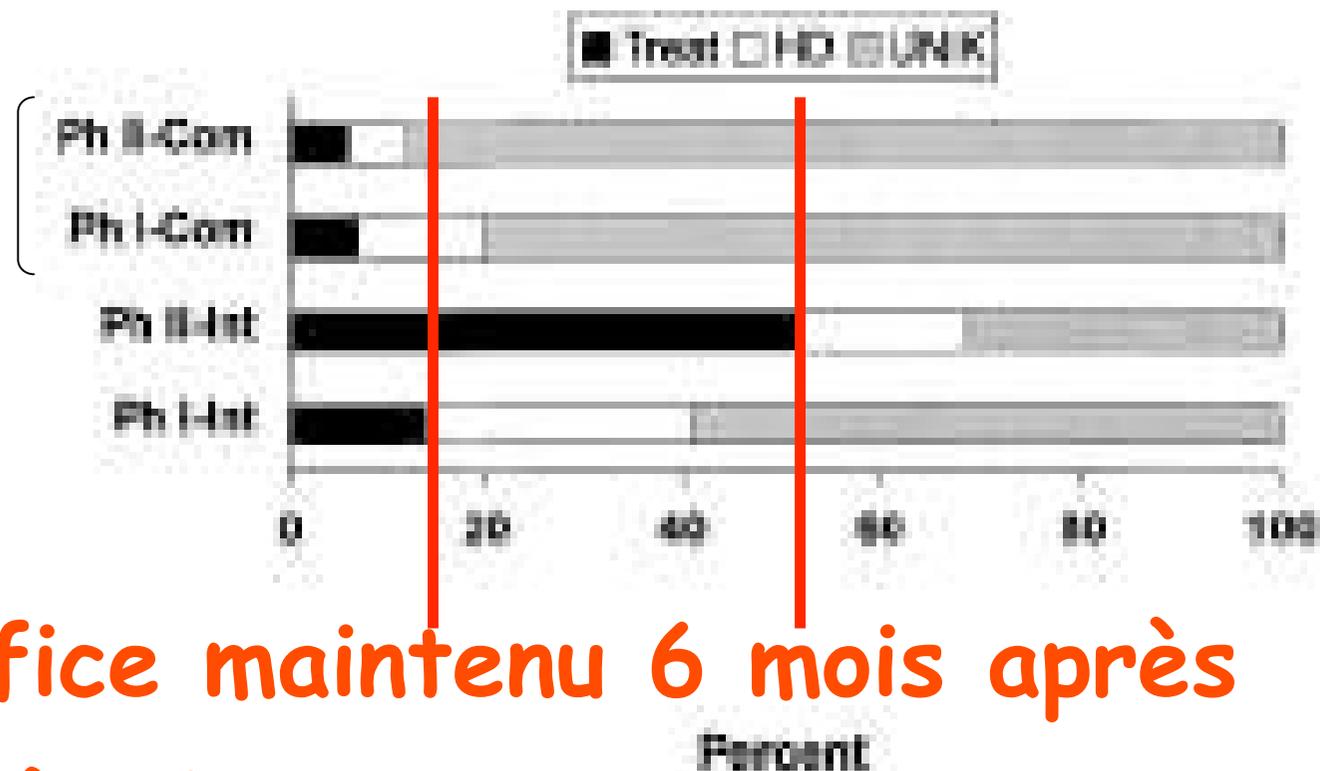
TABLE 2. Primary Outcome Measure of Proportion of Intravenous rTPA Treatment for All Cerebrovascular Event Patients, Ischemic Stroke Patients, and Candidates Eligible for Treatment

| Community | Phase I (n=424) | | Phase II (n=765) | | P* |
|--|-----------------|------|------------------|------|-------|
| | n | % | n | % | |
| All cerebrovascular patients (ischemic stroke, transient ischemic attack, intracranial hemorrhage) | | | | | |
| Intervention | 3/218 | 1.38 | 23/400 | 5.75 | 0.01 |
| Comparison | 1/206 | 0.49 | 2/365 | 0.55 | 1.00 |
| Ischemic stroke patients | | | | | |
| Intervention | 3/136 | 2.21 | 23/266 | 8.65 | 0.02 |
| Comparison | 1/141 | 0.71 | 2/233 | 0.86 | 1.00 |
| Eligible candidates | | | | | |
| Intervention | 3/22 | 14 | 23/44 | 52 | 0.003 |
| Comparison | 1/15 | 7 | 2/36 | 6 | 1.00 |

*Fisher's exact test.

Morgensten,
Stroke 2002

Pas de programme



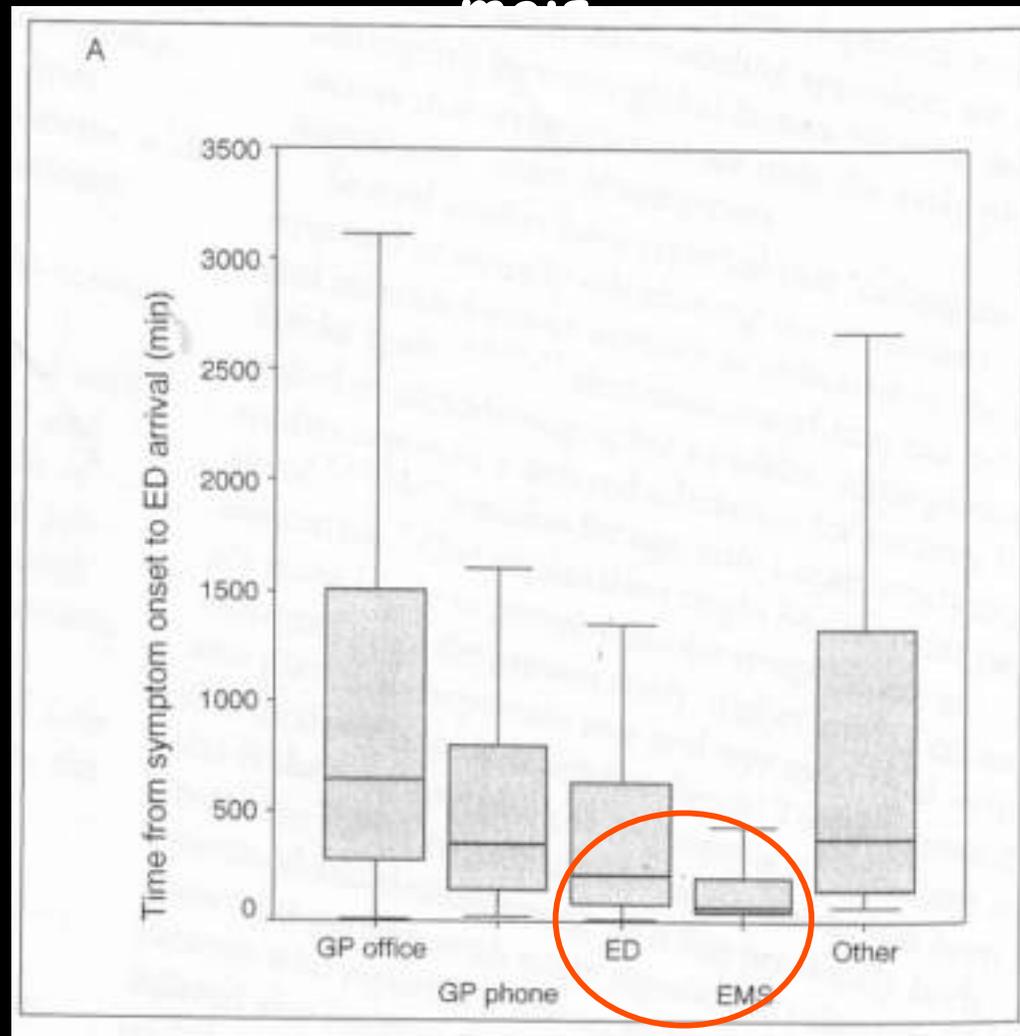
Bénéfice maintenu 6 mois après

l'arrêt du programme

Figure 3. Proportion of eligible candidates treated (Treat) with intravenous tPA, those not treated because of hospital delay (HD), and those not treated because of unknown reasons (UNK). Ph indicates phase; Com, comparison community; and Int, intervention community.

Les délais d'admission: mode de recours

558 patients, admission urgences, 4 hôpit. Allemands, 12



Rossnagel, Ann Emerg Med 2004

Les délais d 'admission: AIT

SOS - AIT, APHP

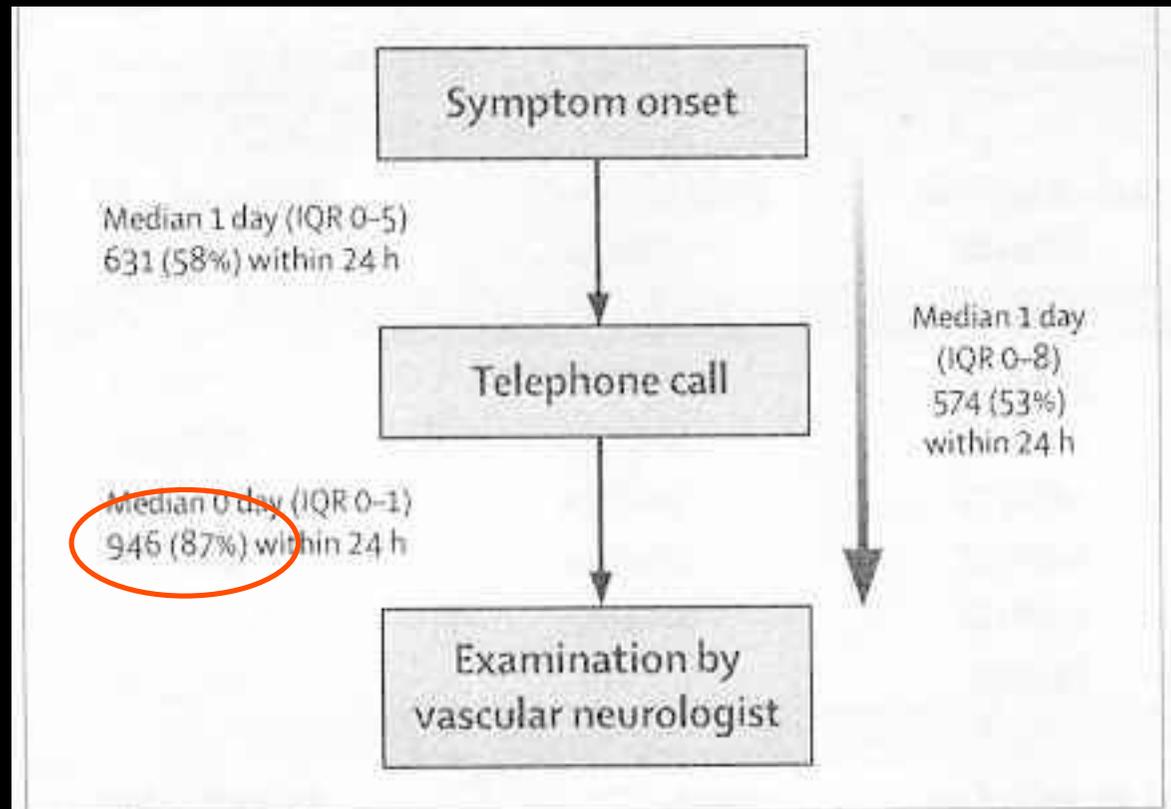


Figure 1: Time from symptom onset to telephone call and to examination in TIA clinic

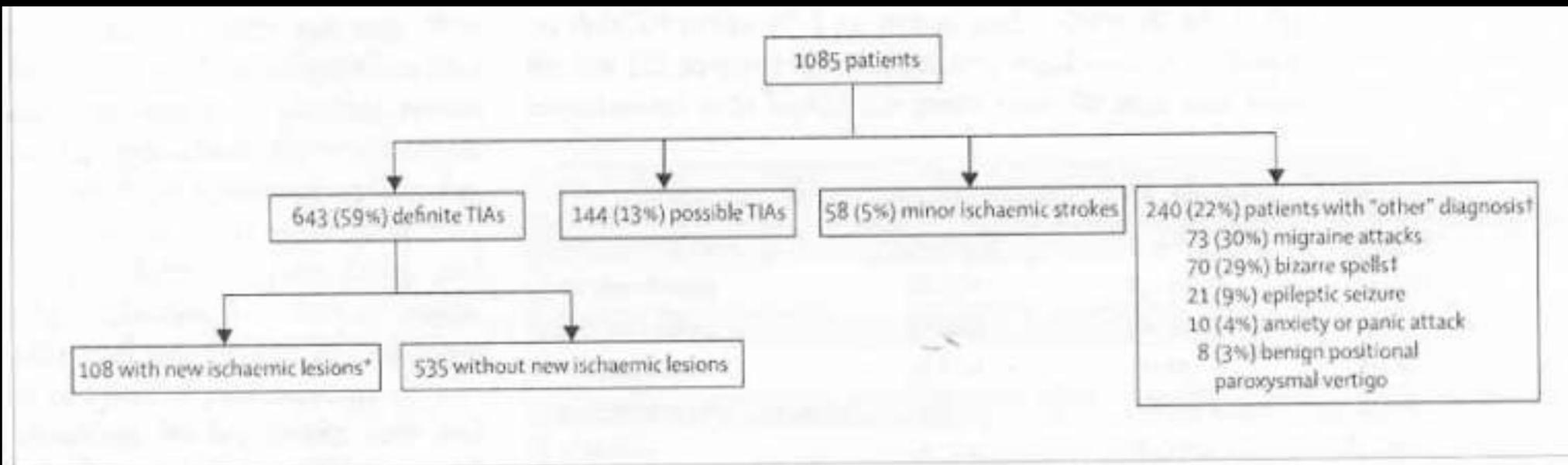


Figure 2: Patient numbers relative to diagnosis by vascular neurologists.

*As diagnosed by MRI (n=105), CT scan (n=3), or both (n=8). †Percentages of the 240 patients who had a non-ischaemic diagnosis. ‡Non-focal or not clearly focal transient neurological events for which the mode of onset, topography, and course of symptoms did not fulfil the criteria for definite or possible TIA or another definite or possible neurological syndrome (eg, epilepsy or migraine).

+ 23 % d'appel en deux ans

808 (74 %) patients à domicile le jour même après bilan et ttt

Lavallee, Stroke, 2007

Conclusions

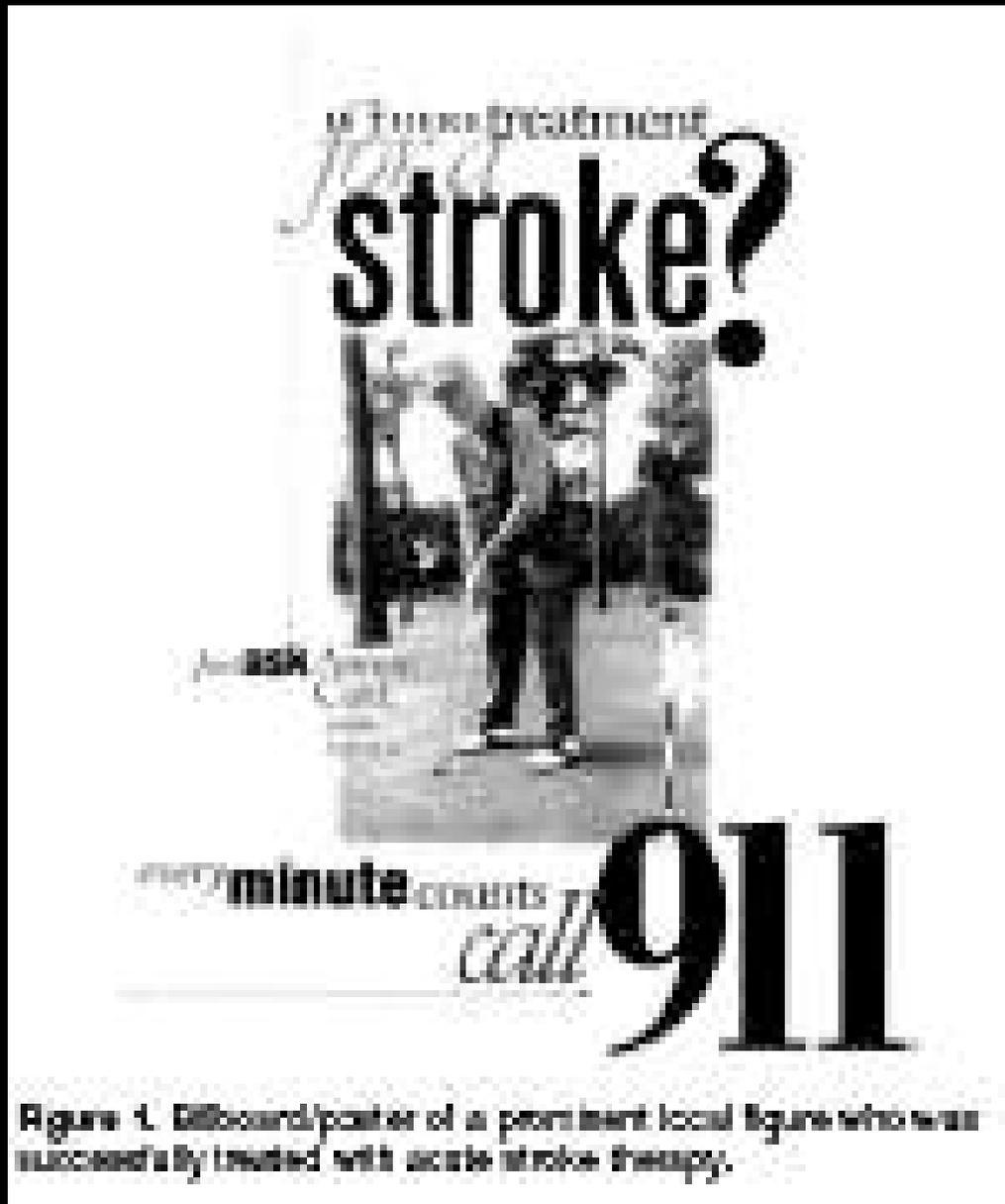


Figure 1. Billboard/poster of a prominent local figure who was successfully treated with acute stroke therapy.

