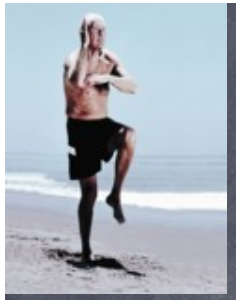
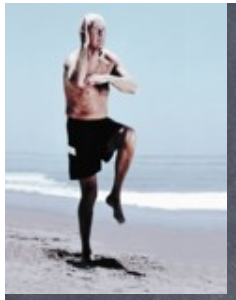


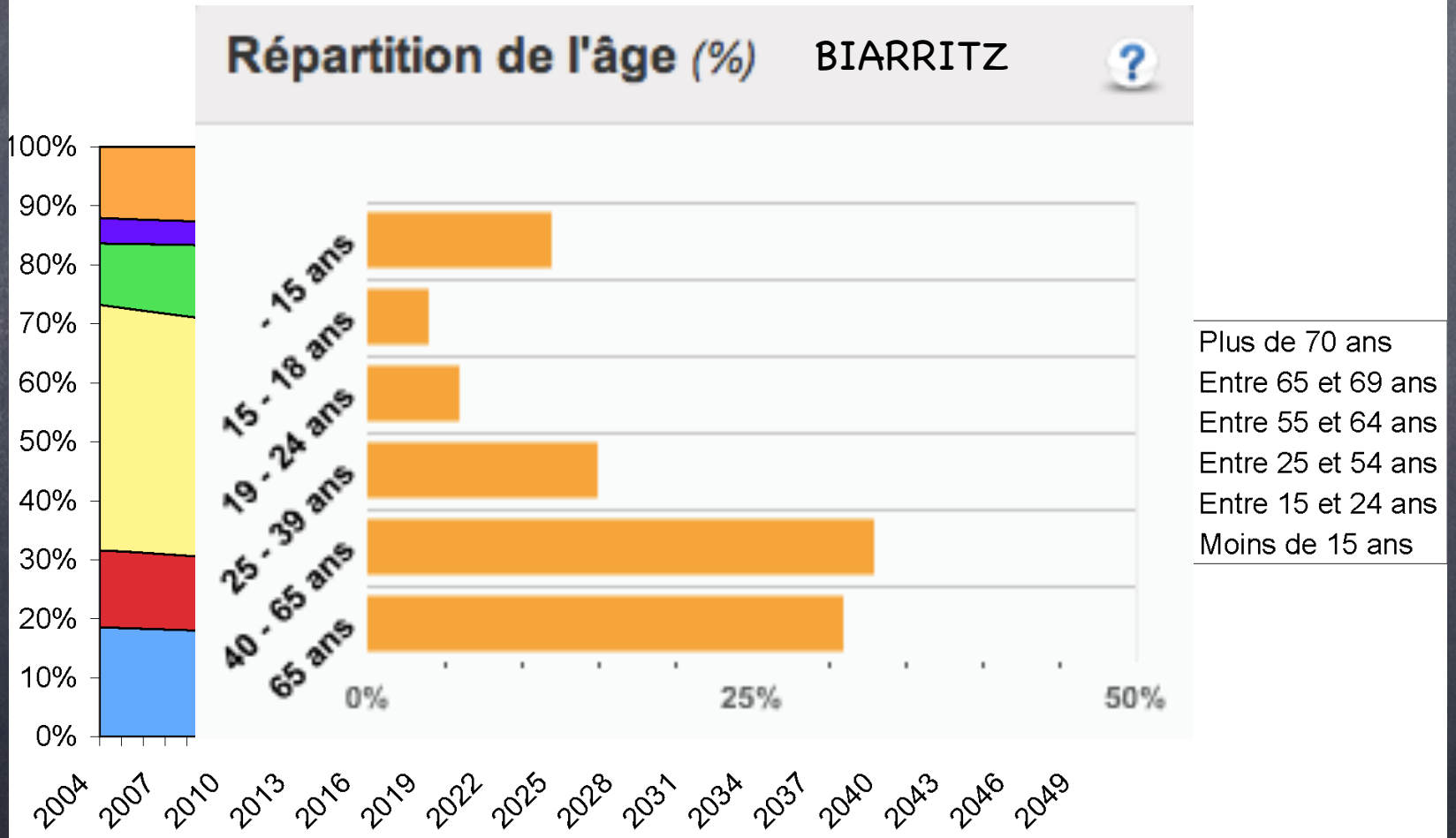
PAPI A 2 ANS : JOYEUX ANNIVERSAIRE

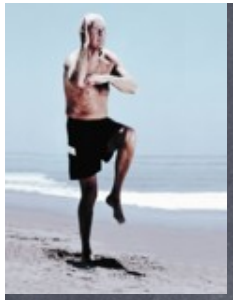
Patrick Dupouy
Hôpital privé d'Antony
Clinique les Fontaines, Melun



Une vraie question de santé publique

Graphique 2 : Evolution de la structure de la population française par





23% 5%

TABLE 1. Baseline Characteristics

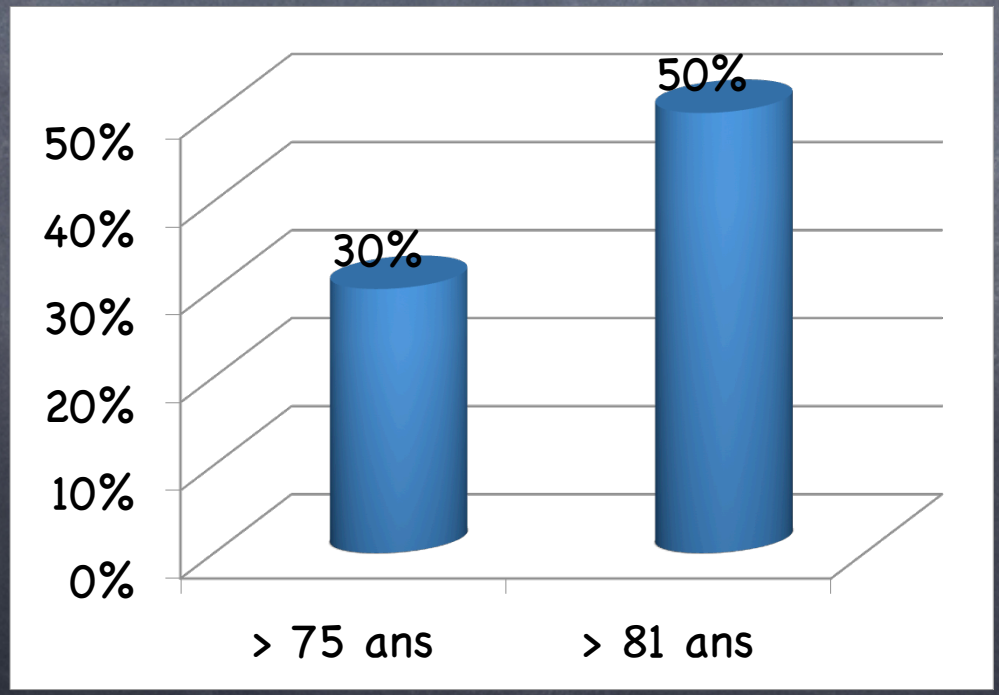
	Age<70 y (n=15 392)	Age 70–79 y (n=5198)	Age≥80 y (n=983)	P

Approach Study ***Circulation. 2002;105:2378-2384***

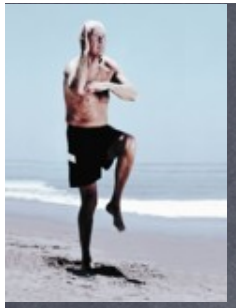
31% 17% 3%

Age < 65 (n = 5341)	Age 65–74 (n = 3342)	Age 75–84 (n = 1885)	Age ≥ 85 (n = 279)

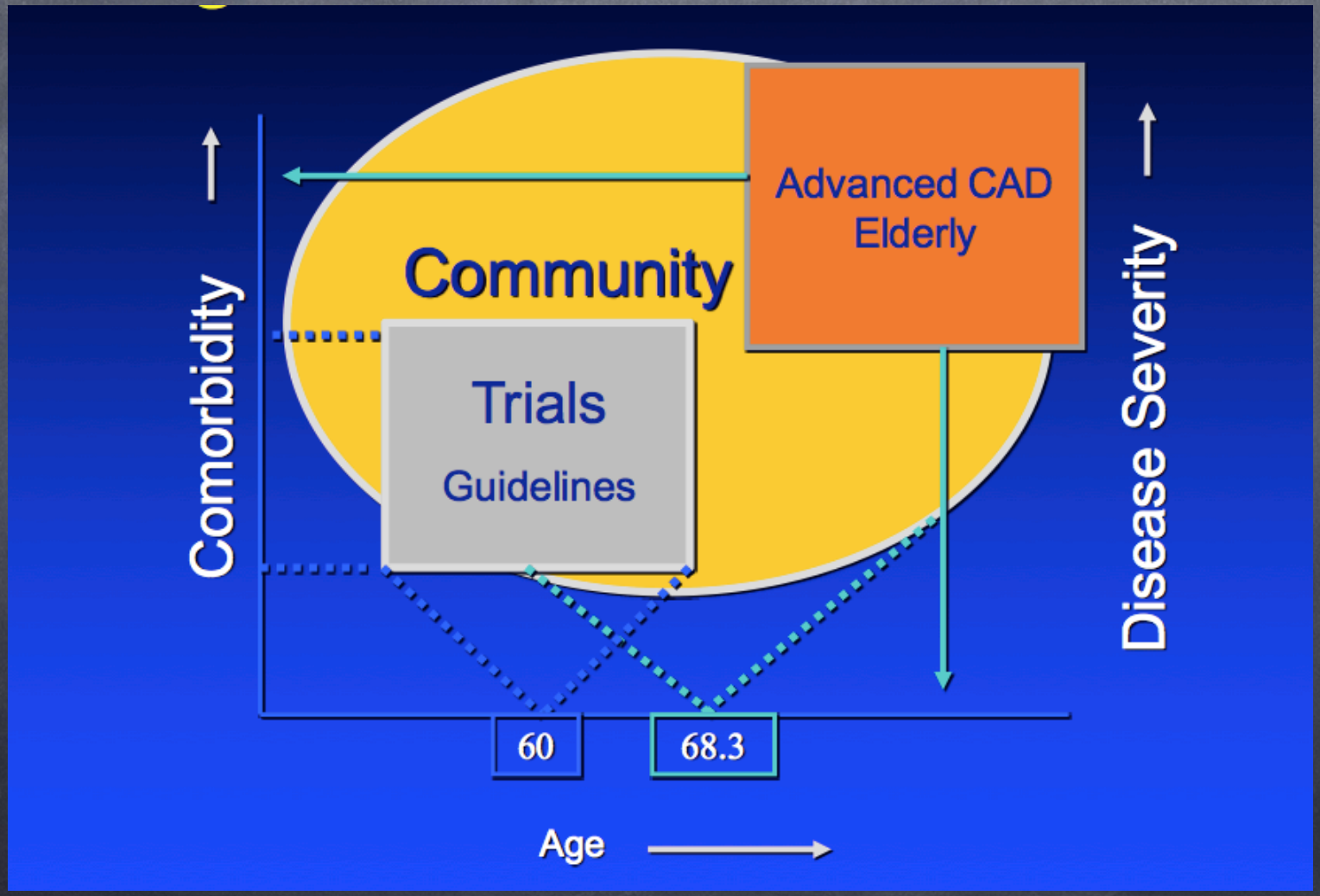
Dynina et col, Cathet Cardiovasc Intervent 2003;58:351

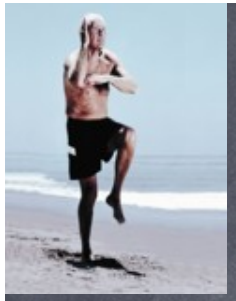


Registre PAPI, Francophone 2008



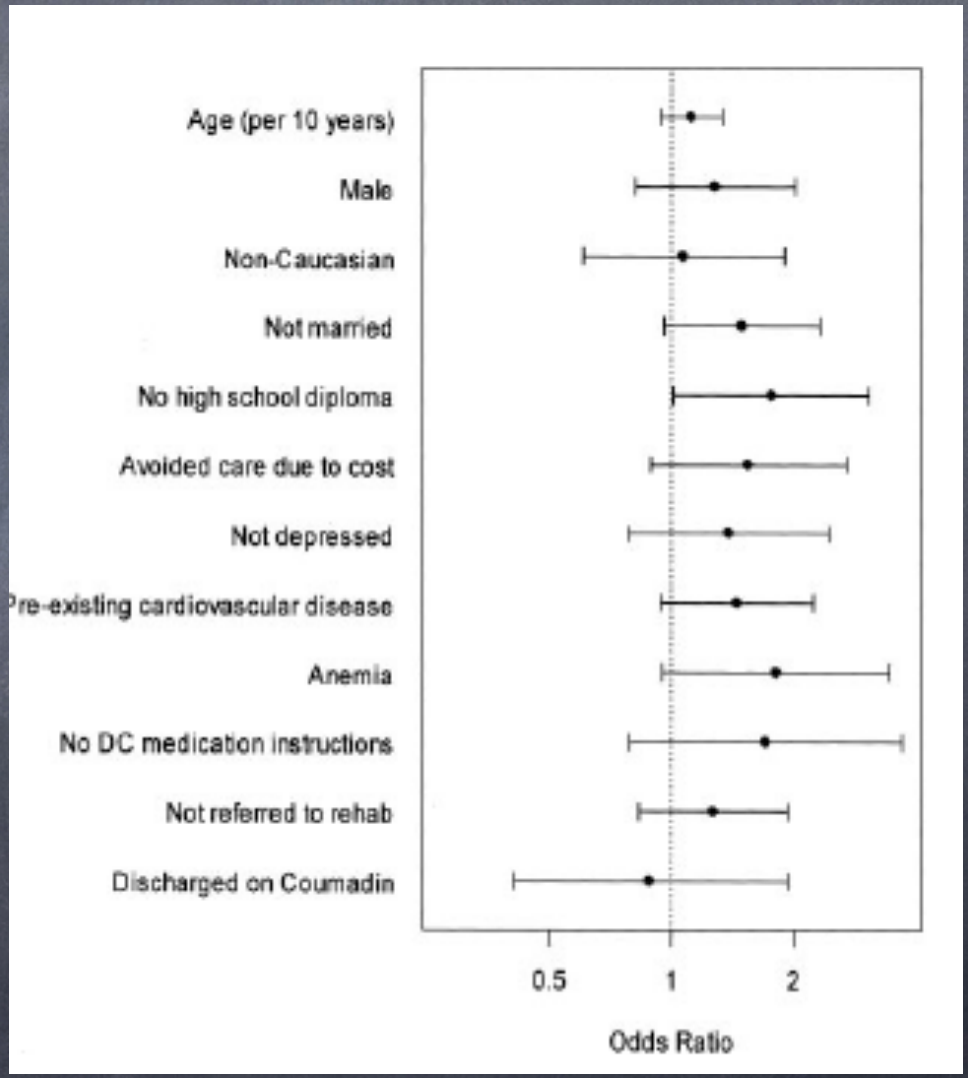
Pas de recommandations spécifiques



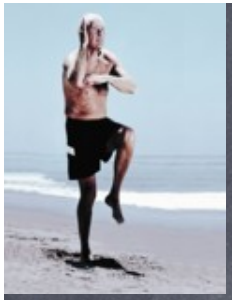


LES SPECIFICITES ….

- Comorbidité
- Observance
- Risque spécifique de thrombose ?



Sianos et col JACC 2007;50:573



Age biologique/Age chronologique

- Vision loss , hearing loss , impaired mobility , vascular problem , gait abnormality, impaired vibration sense , difficulty toi- leting , difficulty cooking , difficulty bathing , difficulty going out, difficulty grooming, skin problems , resting tremor, changes in sleep, difficulty dressing, urinary complaints, gastro-intestinal problem , diabetes, hypertension, limb tone abnormality.

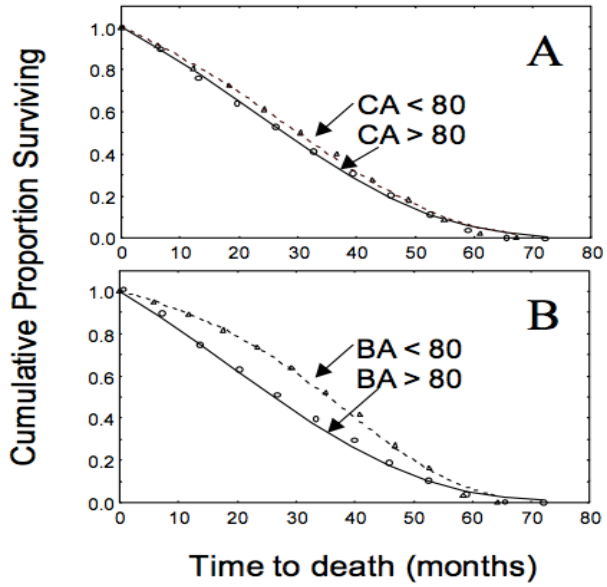
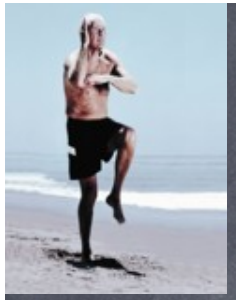


Figure 6
Cumulative proportion of surviving as a function of time to death for two groups with chronological age (A) and biological age (B) less and greater than 80 years. Circles correspond to experimental data for individuals below 80 years old and triangles for individuals above 80 years. Curves correspond to the least square Gompertz's functions (solid lines fit data for the individuals below 80 years and dashed lines for those who was older than 80 years).

BMC Geriatrics 2002, **2**:1



Cahier des Charges : Angioplastie : Survie …. …

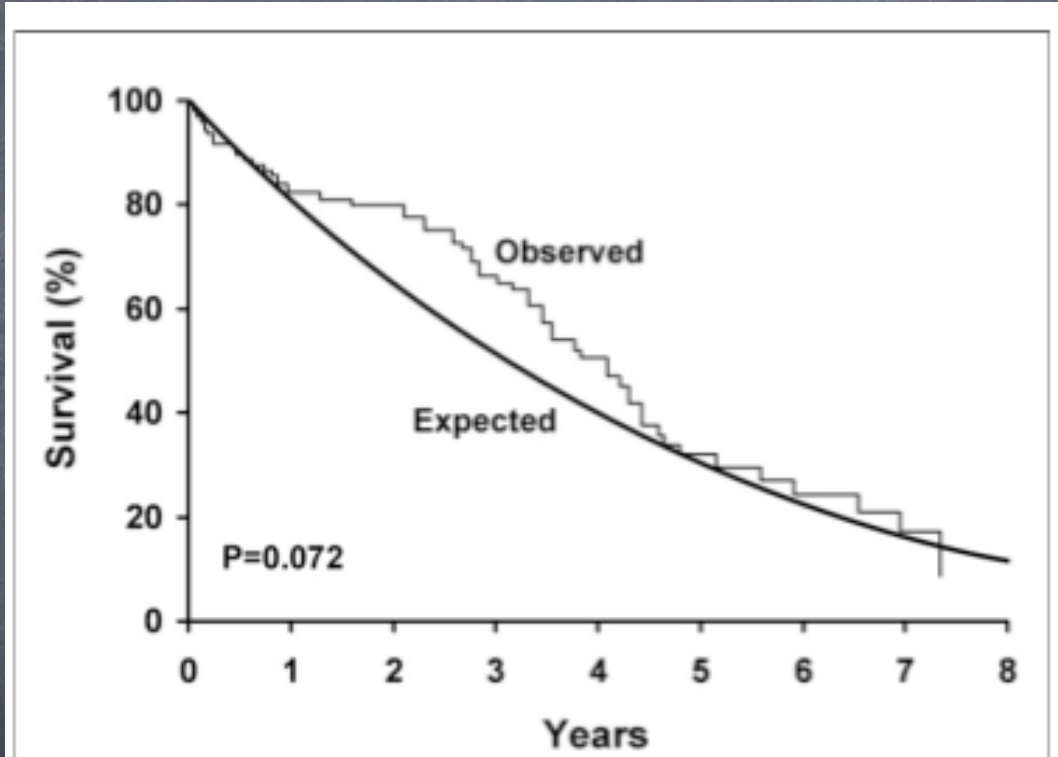
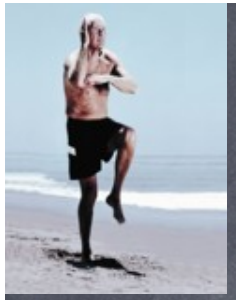


Figure 1. Long-Term Survival

Long-term survival during follow-up among patients versus age, gender, and calendar year of birth-matched controls.

From et al. JACC : CARDIOVASCULARINTERVENTIONS , VOL. 1 , NO. 6 , 2008



Cahier des Charges : Qualité de la vie …. Tout de suite

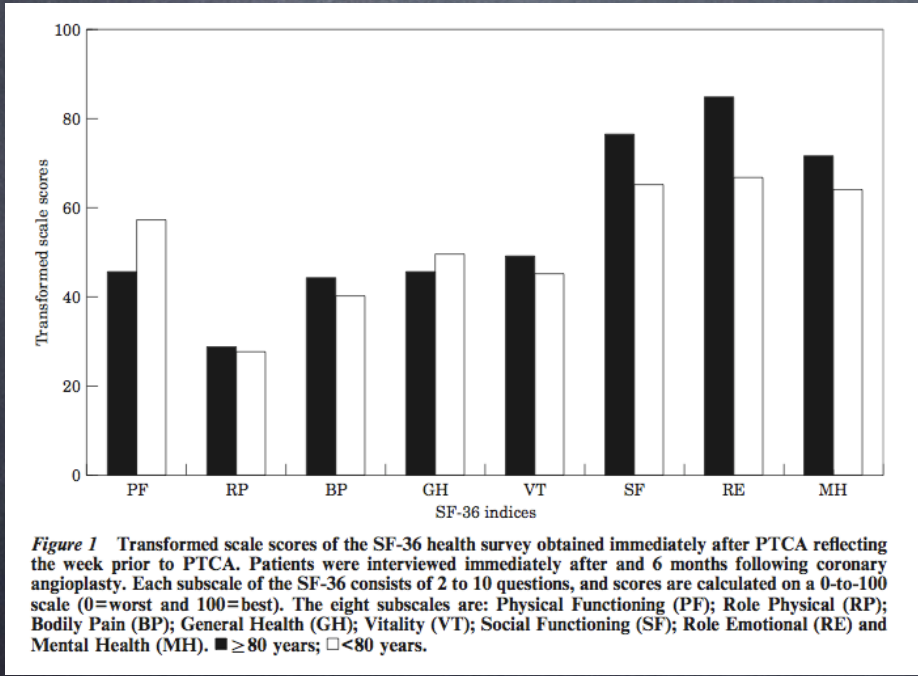


Figure 1 Transformed scale scores of the SF-36 health survey obtained immediately after PTCA reflecting the week prior to PTCA. Patients were interviewed immediately after and 6 months following coronary angioplasty. Each subscale of the SF-36 consists of 2 to 10 questions, and scores are calculated on a 0-to-100 scale (0=worst and 100=best). The eight subscales are: Physical Functioning (PF); Role Physical (RP); Bodily Pain (BP); General Health (GH); Vitality (VT); Social Functioning (SF); Role Emotional (RE) and Mental Health (MH). ■ ≥80 years; □ <80 years.

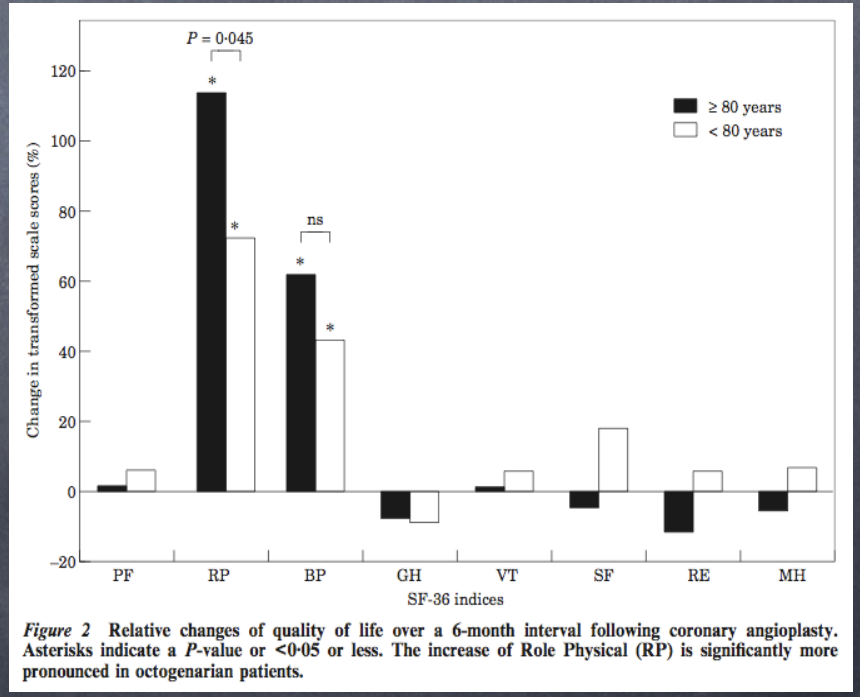
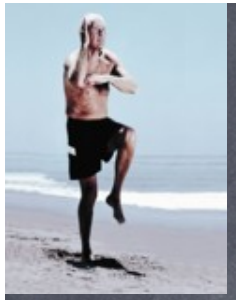


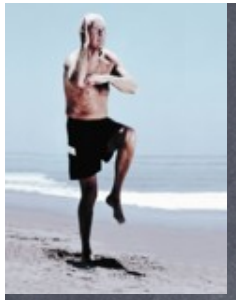
Figure 2 Relative changes of quality of life over a 6-month interval following coronary angioplasty. Asterisks indicate a *P*-value or <0·05 or less. The increase of Role Physical (RP) is significantly more pronounced in octogenarian patients.

J. Kahler et col, Eur Heart J 1999; 20: 1791



Registre PAPI

- Multicentric, Prospective Registre
- Non Consecutive Patients
- Sponsor : Biotronik
- Electronic CRF (Clinigrid)
- Follow-up : 2 years
- Inclusion Criteria
  - Coronary PTCA > 75 years old
- Exclusion Criteria
  - ST+, cardiogenic shock
  - Behaviour trouble
  - Spontaneous prognosis < 2 years



Organisation

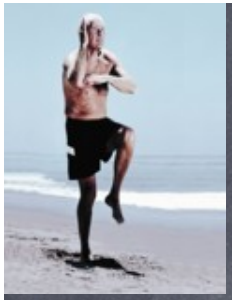
Pilot committee

Dr Patrick Dupouy-Antony
Dr Michel Hanssen-Haguenau
Pr Emmanuel Teiger-Créteil
Dr Olivier Wittenberg-Macon

Events Adjudication committee

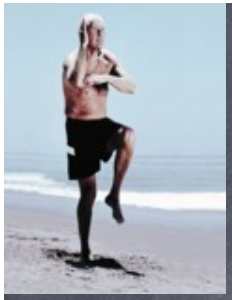
Pr Michel Slama-Clamart
Dr Janusz Lipiecki-Clermont Ferrand

Sponsor : BIOTRONIK France
Dominique Roy
Virginie Colin



Clinique Saint-Vincent	Besançon	**80**
Centre hospitalier Jacques Cœur	Bourges	**80**
Clinique Générale	Marignane	**80**
Clinique AXIUM	Aix-en Provence	**79**
Hôpital Gabriel Montpied-CHUR1	Clermont-Ferrand	**78**
Centre Hospitalier Privé Beauregard	Marseille 12	**78**
Centre Hospitalier Henri Mondor	Créteil	**72**
Clinique Rhône-Durance	Avignon	**71**
SIMBB Polyclinique de Bois Bernard	Rouvroy	**69**
Hôpital de la Cavale Blanche - CHU	Brest	**64**
Clinique les Fontaines	Melun	**62**
Centre chirurgical Marie Lannelongue	Le Plessis Robinson	**47**
Hôpital Privé d'Antony	Antony	**45**
Clinique Turin	Paris 8	**43**
Hôpital Arnaud de Villeneuve	Montpellier	**41**
Centre cardiologique d'Evecquemont	Evecquemont	**40**
Hôpital Nord	Saint Etienne	**40**
Hôpital de Rangueil-CHU	Toulouse	**40**
Centre Hospitalier Fréjus St Raphaël	Fréjus	**39**
Centre Hospitalier des Cornouailles	Quimper	**39**
Hôpital Henri Duffaut	Avignon	**38**
Hôpital Nord-CHU	Marseille 15	**38**
Clinique Saint-Sauveur	Mulhouse	**38**
Hôpital A. Michallon-CHU	Grenoble	**37**
Clinique du TONKIN	Villeurbanne	**34**
Centre Hospitalier St Joseph et St Luc	Lyon	**32**
Groupe Hospitalier Pitié Salpétrière	Paris 13	**32**
Centre hospitalier général	Haguenau	**30**
Centre Cardio vasculaire Valmante	Marseille 9	**29**
CH Bastia	Bastia	**25**
Centre Hospitalier de Compiègne	Compiègne	**25**
Hôpital Pierre Bérégovoy	Nevers	**25**
Hôpital Robert Debré	Reims	**25**
Clinique St Come	Le Mans	**24**

Clinique St Gatien	Tours	**24**
Hôpital Antoine Béclère	Clamart	**23**
Centre Hospitalier de Troyes	Troyes	**22**
Centre Hospitalier Notre Dame de la Miséricorde	Ajaccio	**21**
Centre hospitalier de Belfort Montebéliard	Belfort	**21**
Centre Cardiologique du Nord	Saint-Denis	**21**
Polyclinique Vauban	Valenciennes	**19**
Hôpital Européen Georges Pompidou	Paris 15	**18**
Clinique du Millénaire	Montpellier	**17**
Centre Hospitalier Bretagne Atlantique	Vannes	**17**
Clinique des Cèdres	Cornebarrieu	**15**
Clinique Vert Coteau	Marseille 12	**15**
Centre hospitalier Intercommunal	Villeneuve St Georges	**15**
Centre hospitalier universitaire Tenon	Paris 20	**14**
Clinique Alleray-Labrouste	Paris 15	**13**
Hôpital Charles Nicolle-CHU	Rouen	**13**
Centre Hospitalier Général	Valenciennes	**13**
CHU Côte de Nacre	Caen	**11**
Hôpital Gabriel Montpied-CHUR2	Clermont-Ferrand	**11**
Centre Hospitalier Universitaire Caremeau	Nîmes	**11**
Hôpital d'adultes de la Timone-CHU	Marseille 5	**10**
Centre Hospitalier Privé Saint Martin	Caen	**9**
Hôpital Lariboisière	Paris 10	**9**
CH de la Côte Basque	Bayonne	**8**
Clinique de la Casamance	Aubagne	**7**
Hôpital Bon Secours	Metz	**7**
Clinique de la Reine Blanche	Orléans	**7**
Hôpital Duchenne - CHG	Boulogne s/mer	**5**
Polyclinique du Bois	Lille	**4**
Polyclinique Louis Pasteur	Essey-lès-Nancy	**3**
Hôpital Ambroise Paré	Boulogne Billancourt	**2**
Institut Arnault Tzanck	St Laurent du Var	**1**



INCLUSIONS from 15/09/2007 to 31/07/2008

1906 PTS INCLUDED

6 MONTHS = 1866 PTS

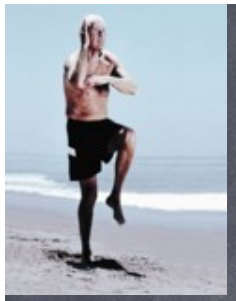
- 40 MISSED PATIENTS / 97%

1 Y = 1784 PTS

- 122 MISSED PATIENTS / 96%

2 Y = 1714 PTS

- 192 MISSED PTS / 90%



Evaluation Criteria

Hospital, 6 month, 1 et **2** years

Primary Endpoints :

MACE : Cardiac death, Myocardial Infarctus, Revascularisation

MACCE (Major Cardiac or Cerebrovascular Events)

Major Events: MACCE + life threatening Events or prolongation of hospitalisation duration

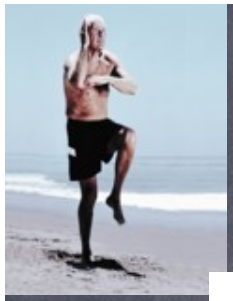
Secondary Endpoints :

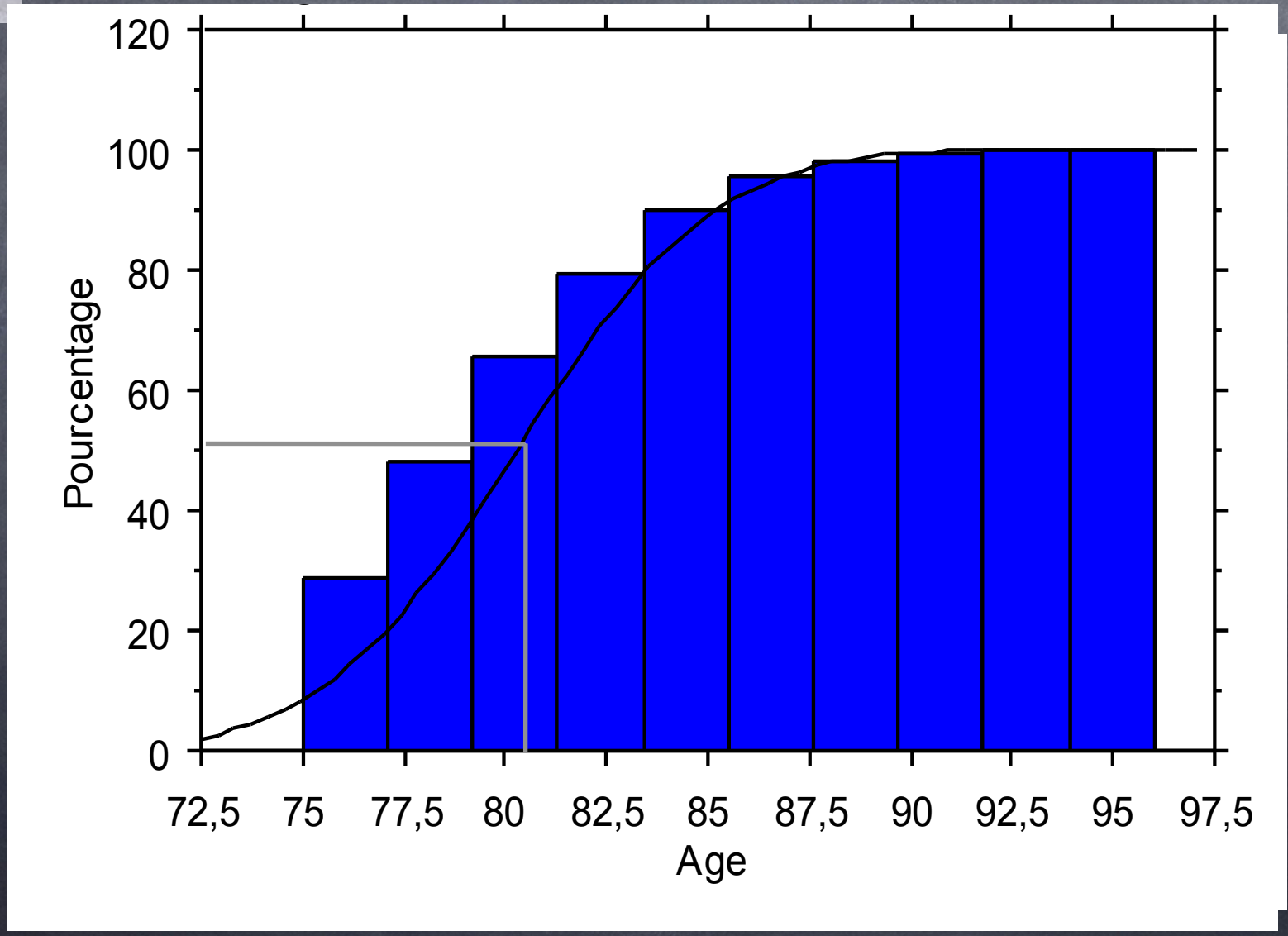
Minor Events : ≠Major Events

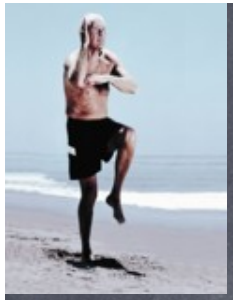
Bleeding complications : Acuity Definition

Type of stent use and decision criteria

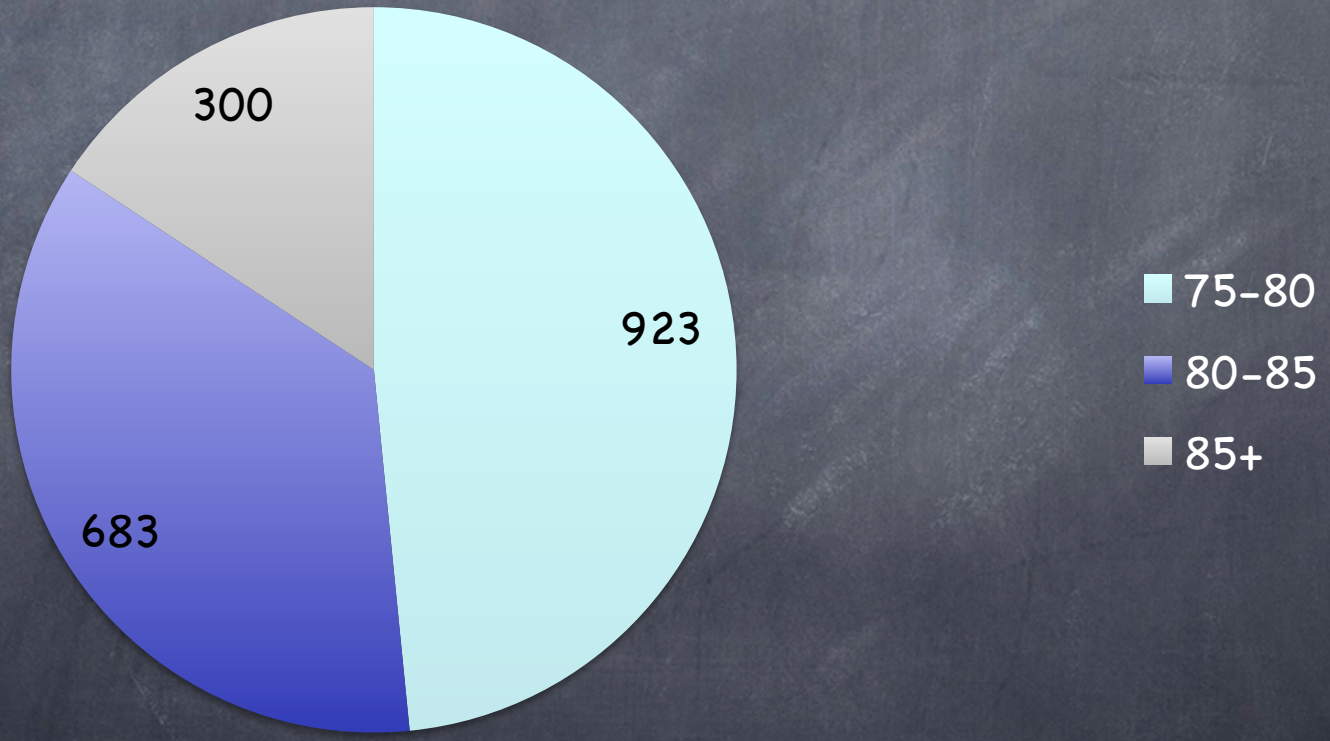
Stent Thrombosis rate : Arc definition

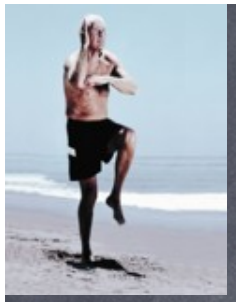



120
100
80
60
40
20
0
Pourcentage
72,5
75
77,5
80
82,5
85
87,5
90
92,5
95
97,5
Age

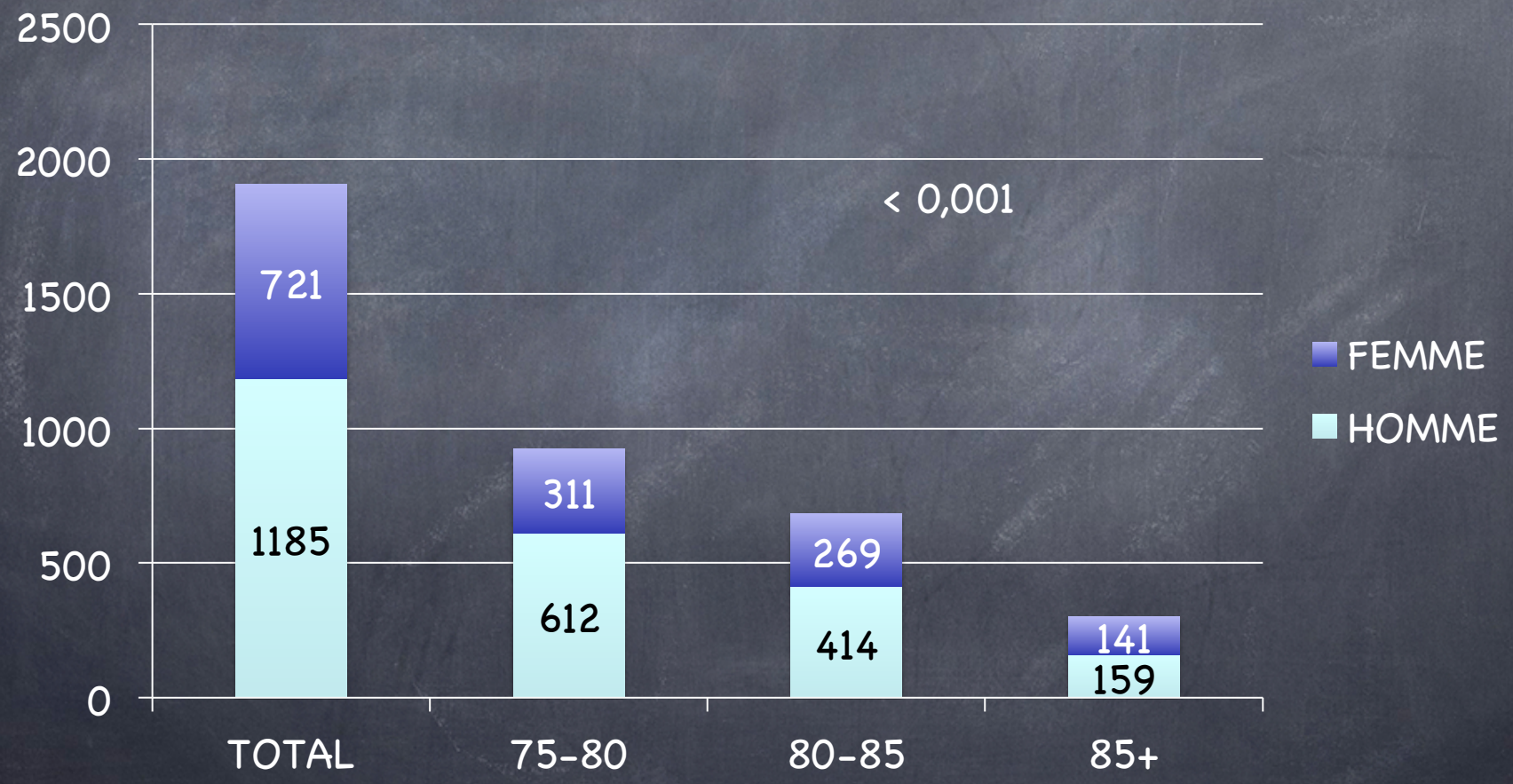


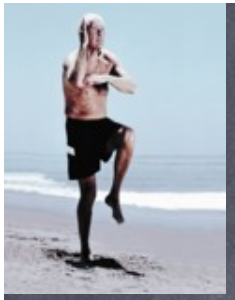
Répartition des Patients par tranche d'âge





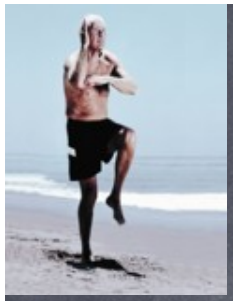
Sex ratio


2500
2000
1500
1000
500
0
< 0,001
721
1185
311
612
269
414
141
159
TOTAL
75-80
80-85
85+
FEMME
HOMME

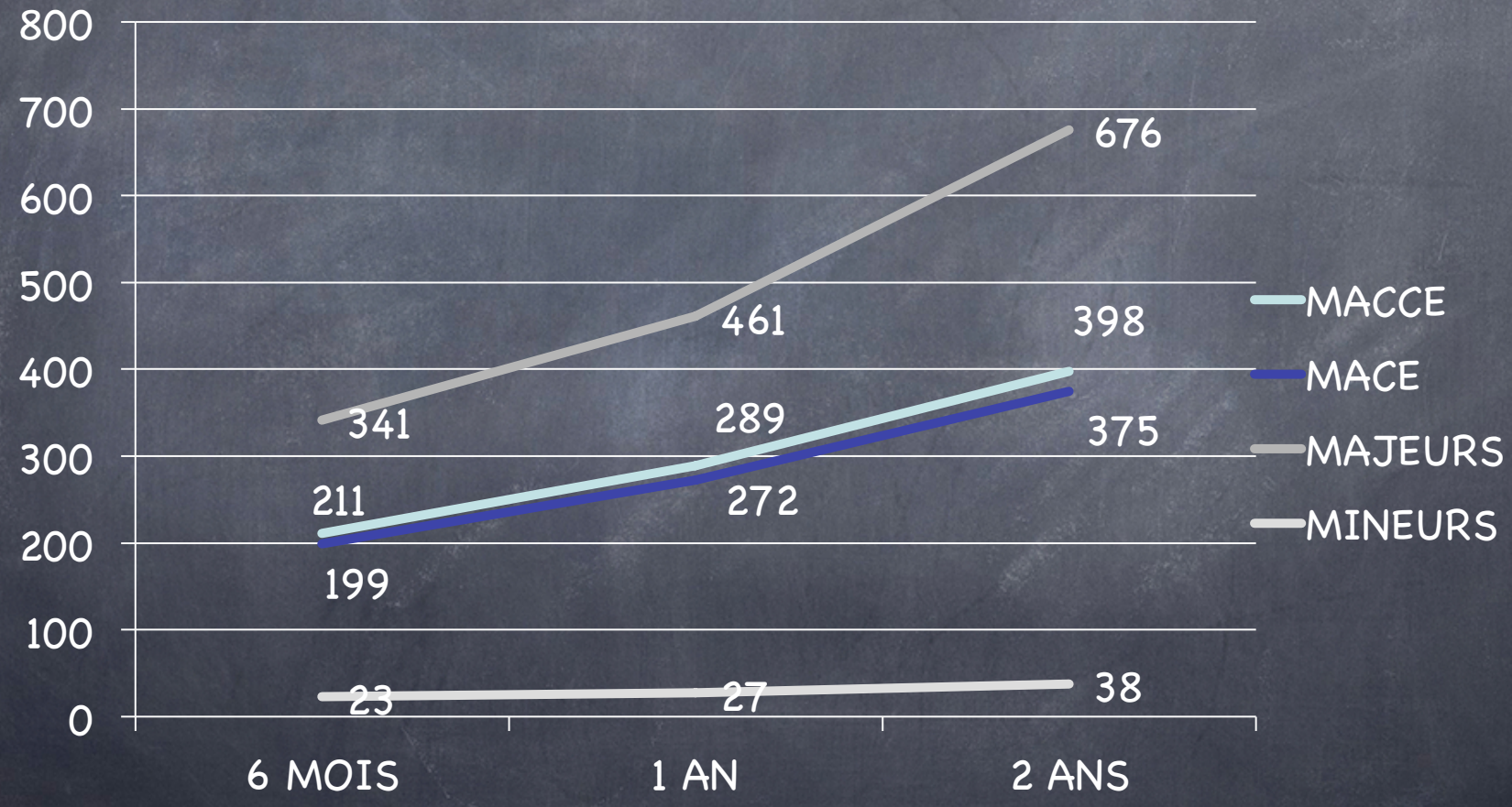


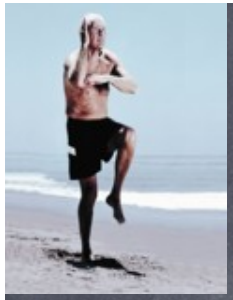
Patients Characteristics

Characteristics	75-80	80-85	>85	Total	p-value
N	923	683	300	1714	
Male (%)	66,3% (612)	60,6% (414)	53% (153)	62,2% (1185)	0,000
Mean age (yrs)	77,1±1,4	81,7±1,4	86,8±2,1	80,3±3,8	0,000
Prior MI ST-	6% (55)	4,7% (32)	7,0% (21)	5,7% (108)	0,305
Prior MI ST+	14,6% (135)	10,8% (74)	7% (21)	12,1% (230)	0,001
Valvuloplastie	1,2% (11)	1,0% (7)	2,7% (8)	1,4% (26)	0,104
Dyslipidemia treated (%)	57,9% (534)	53% (362)	44% (132)	53,9% (1028)	0,001
Hypertension treated (%)	71,5% (661)	69,4% (474)	228 (76%)	1362 (71,5%)	0,108
Renal Insufficiency	48,7 (461)	65,3% (465)	72,9% (229)	58,5% (1155)	0,000
Current smoker	6,6% (61)	4% (27)	3% (9)	5,1% (97)	0,01
Ex-smoker	30,6% (282)	25,0% (171)	20% (60)	26,9% (513)	0,001
Family history	17,3% (160)	11,6% (71)	10% (30)	14,1% (269)	0,001
Diabetes	31,4% (291)	26,4% (180)	20,7% (62)	28% (533)	0,001
Insulin dependent	8,9% (82)	6,3% (43)	7,7% (22)	6,4% (147)	0,152
LVEF <30%	1,2% (11)	1% (7)	1% (3)	1,1% (23)	NA

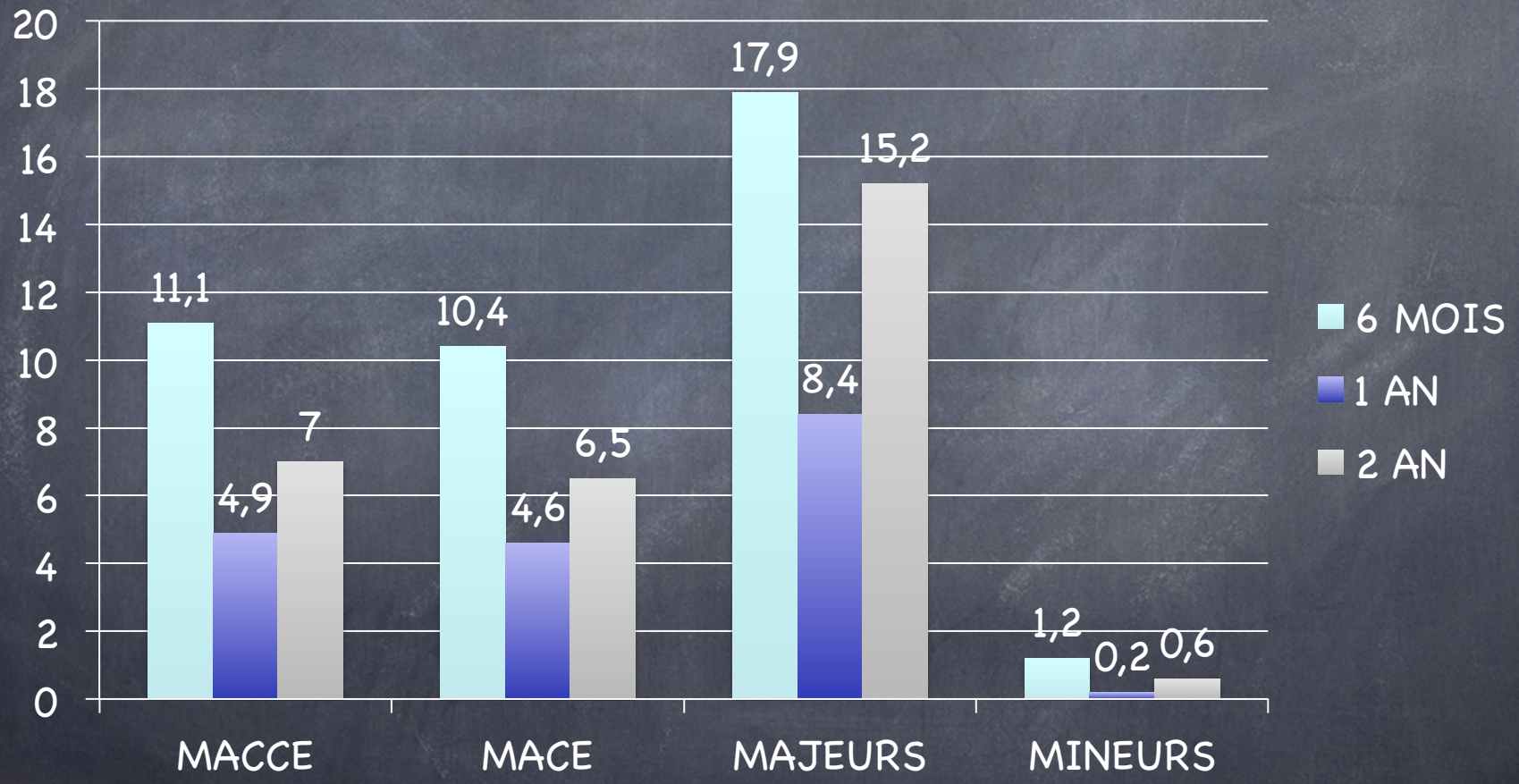


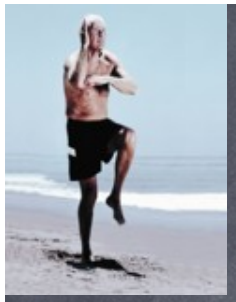
COURBES DE SURVENUE DES EVENEMENTS



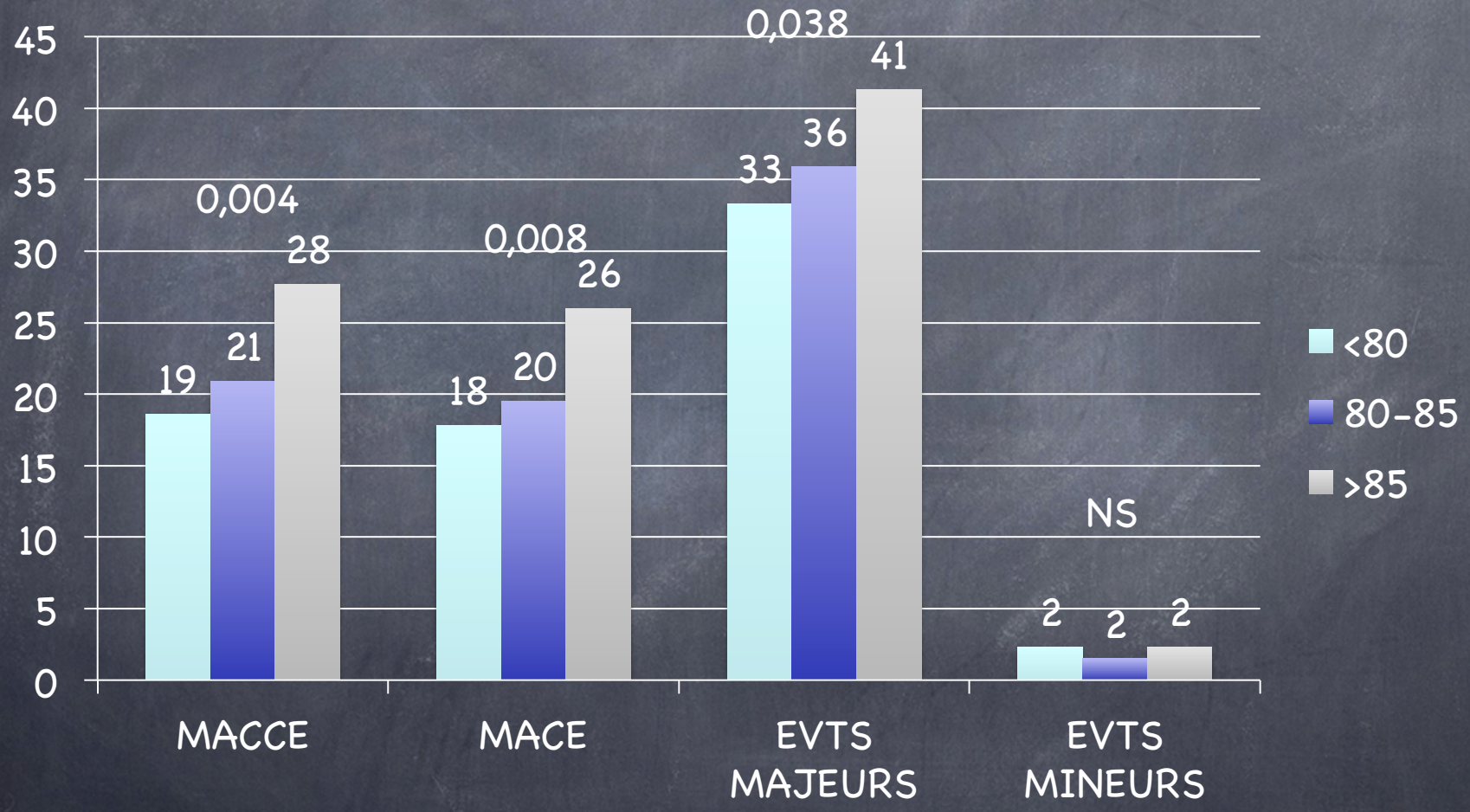


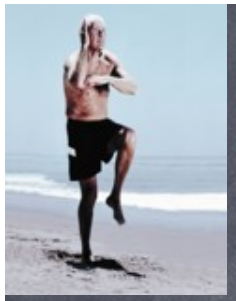
INCIDENCE EVENEMENTS PAR SUIVIS



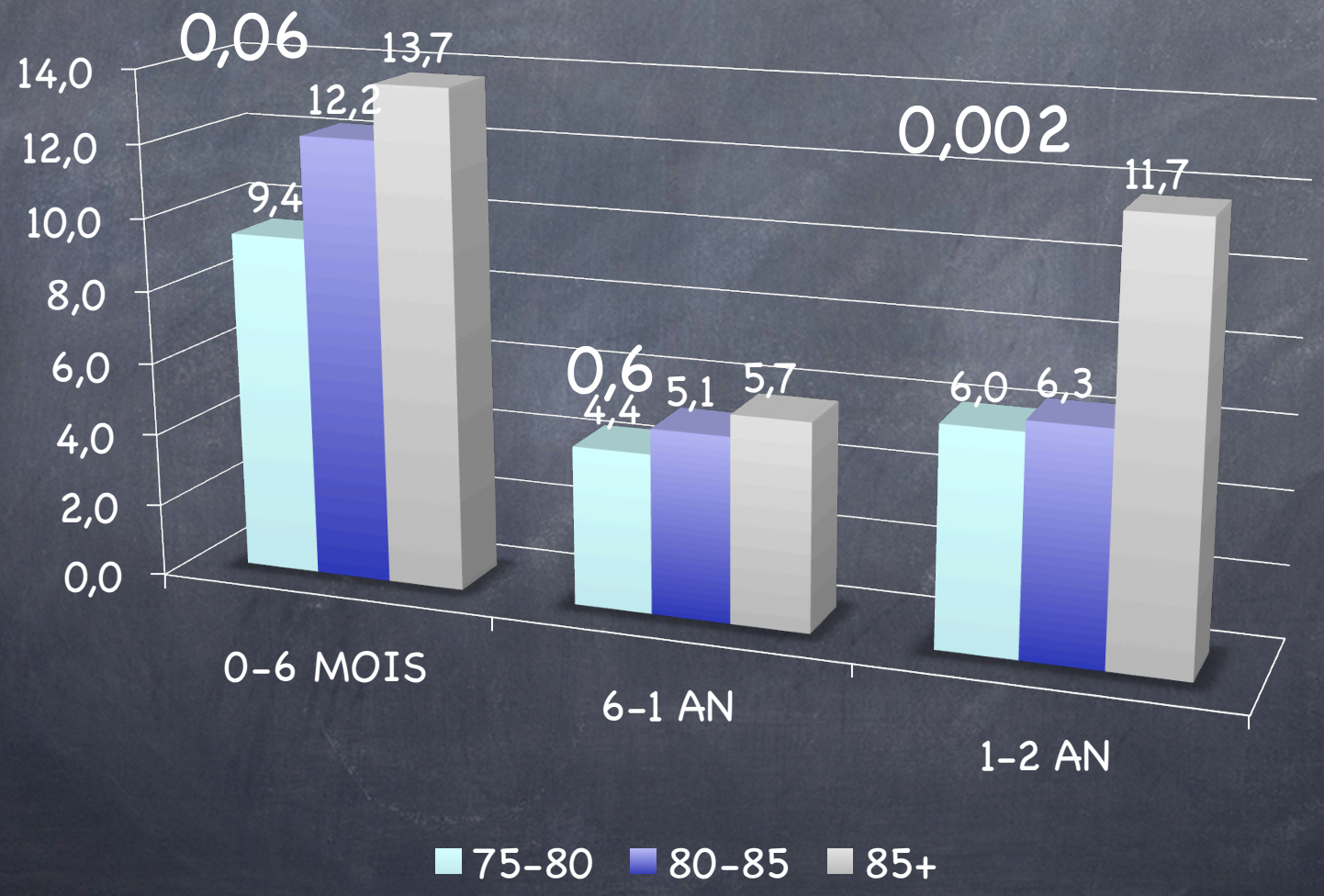


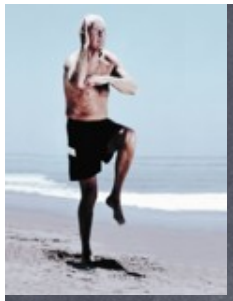
Critère Primaire Par Age – 2 ans



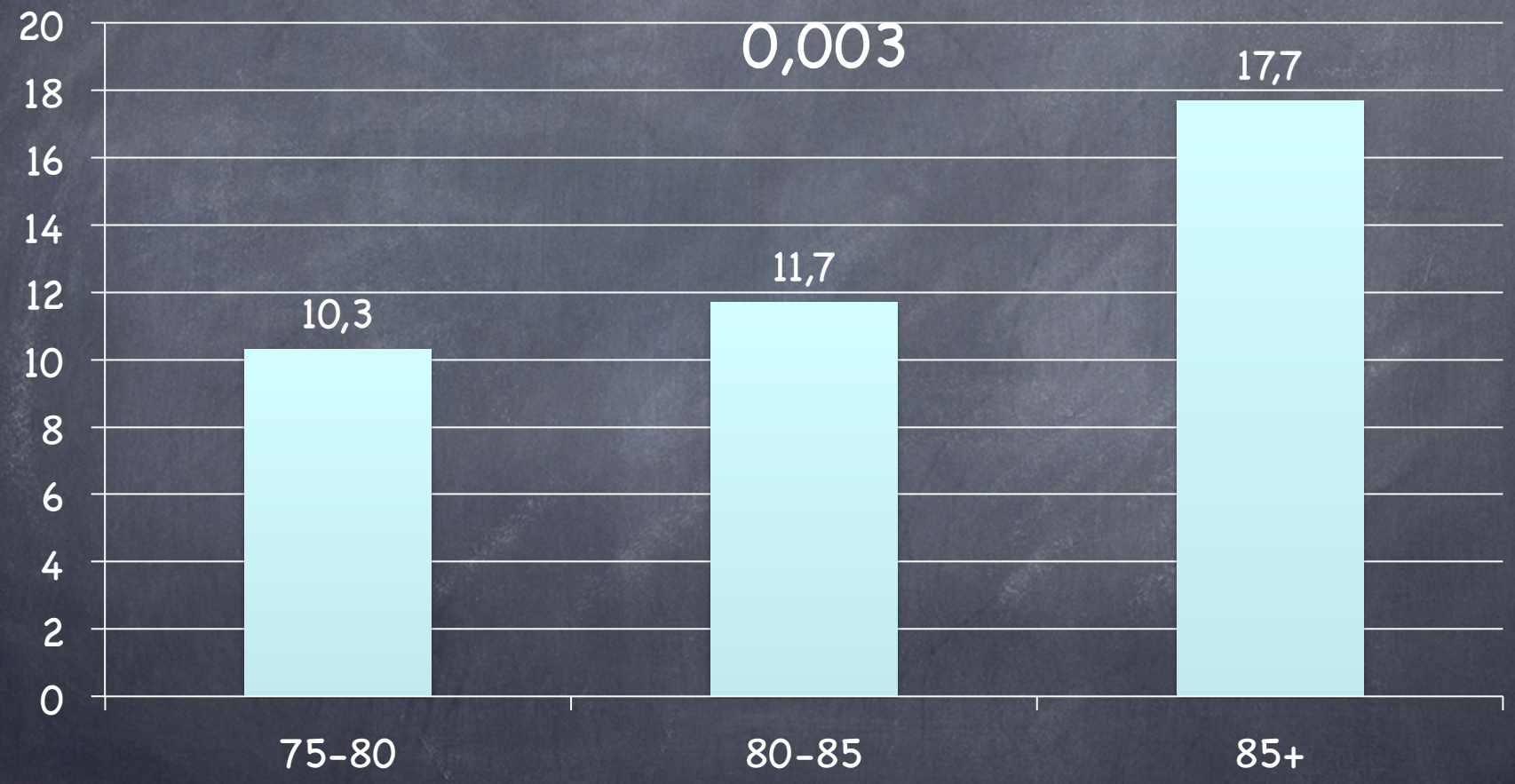


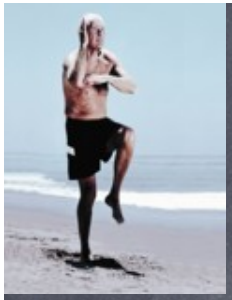
CINETIQUE DES MACCE EN FONCTION/CLASSE AGE 2 ANS



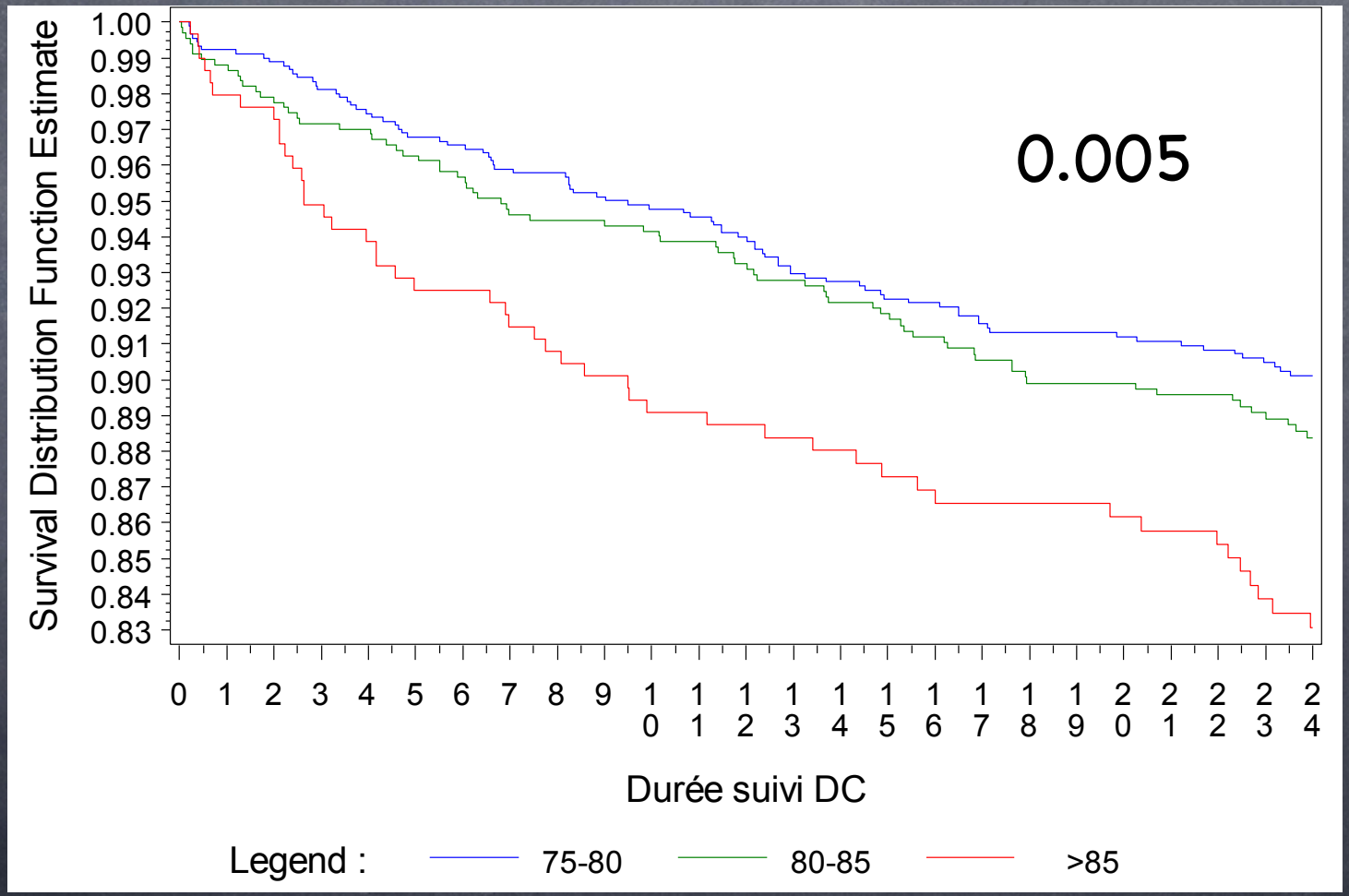


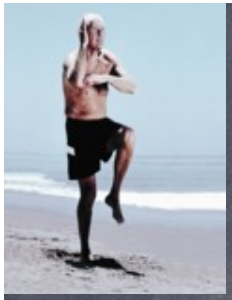
DECES/AGE 2 ANS



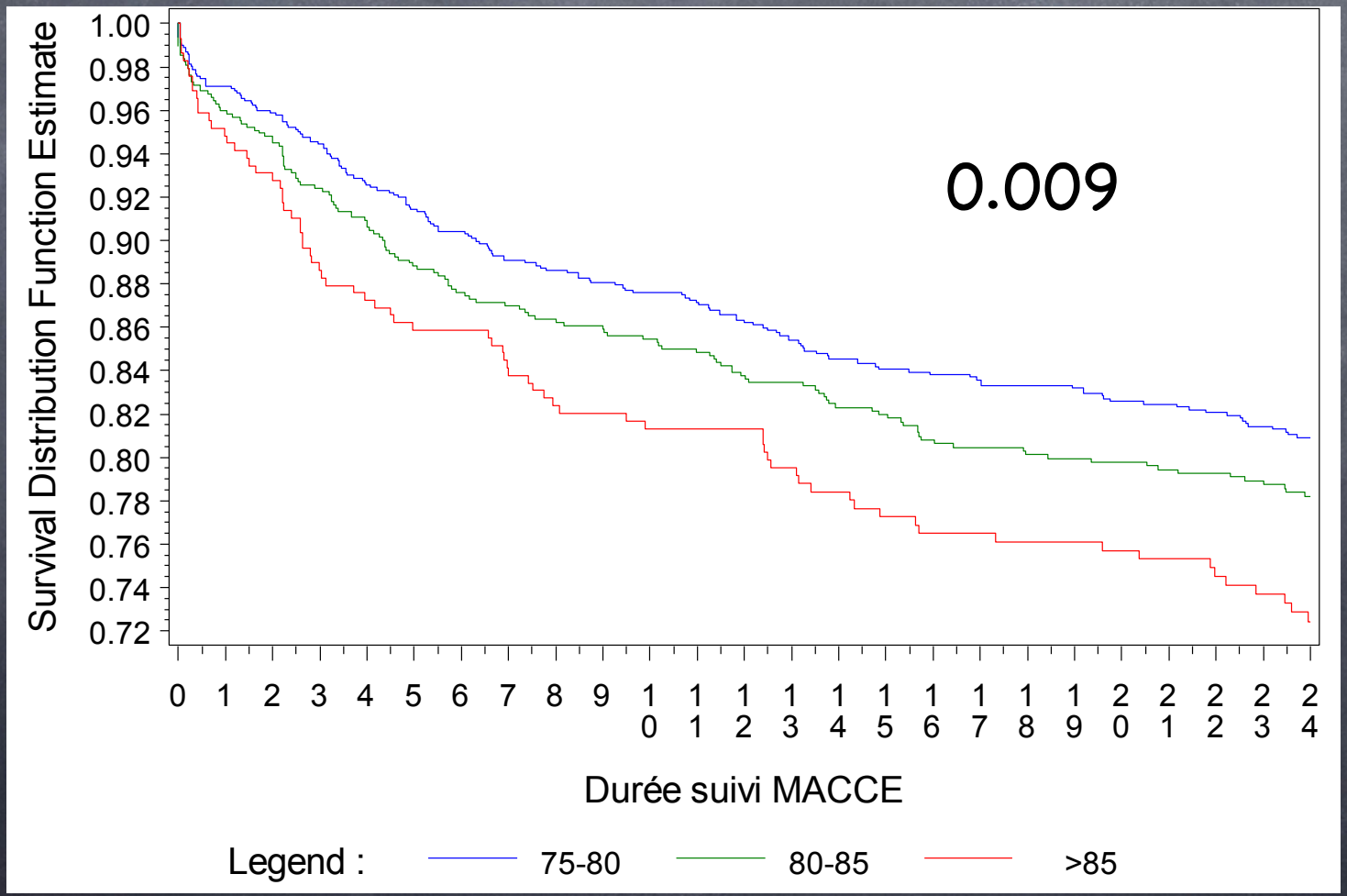


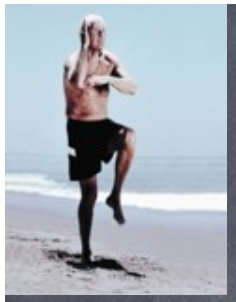
DECES CLASSE D'AGE 2 ANS



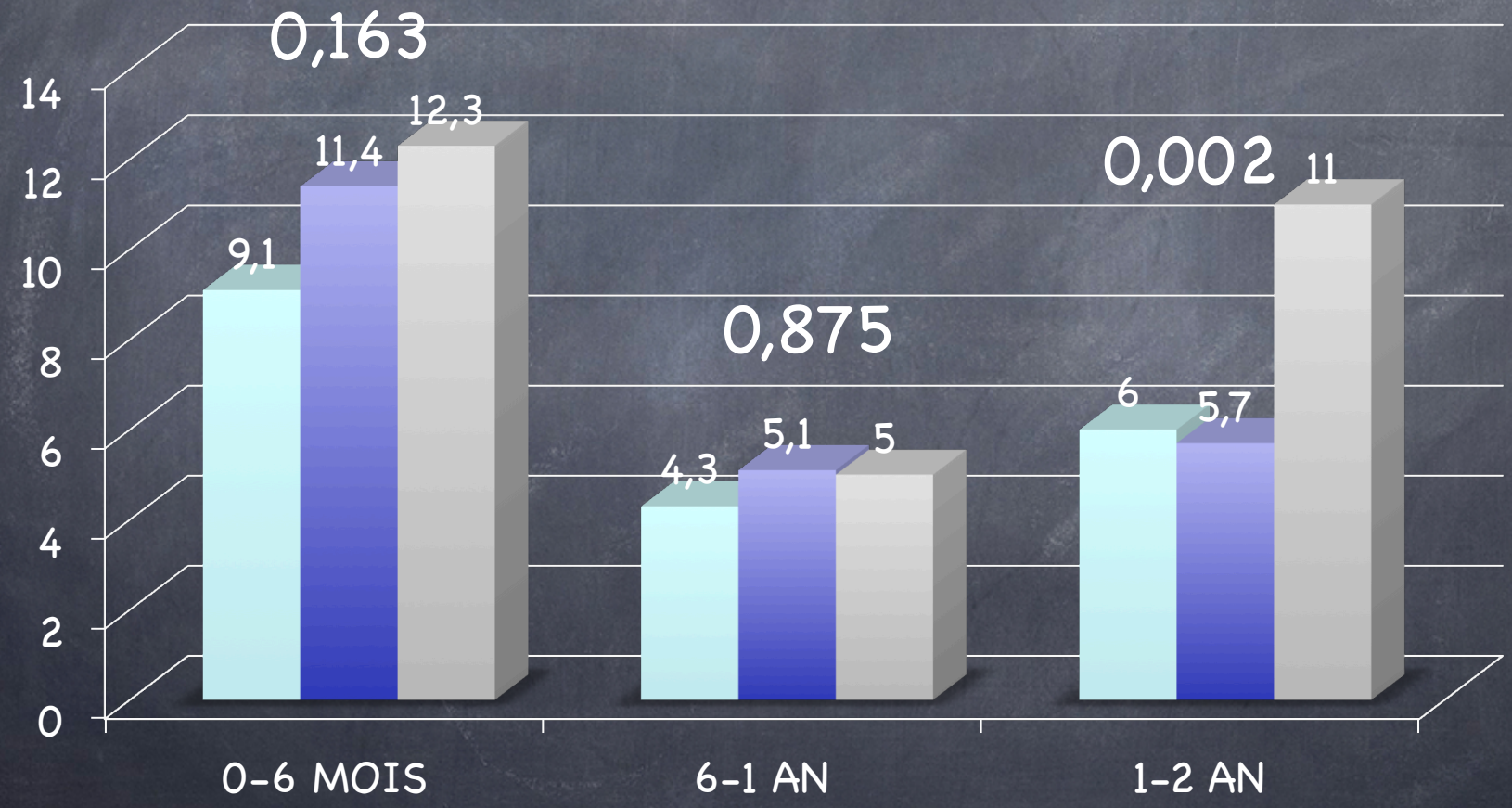


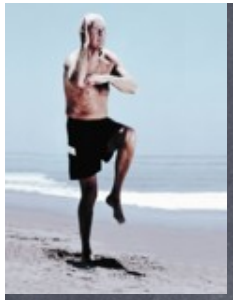
MACCE CLASSE D'AGE 2 ANS



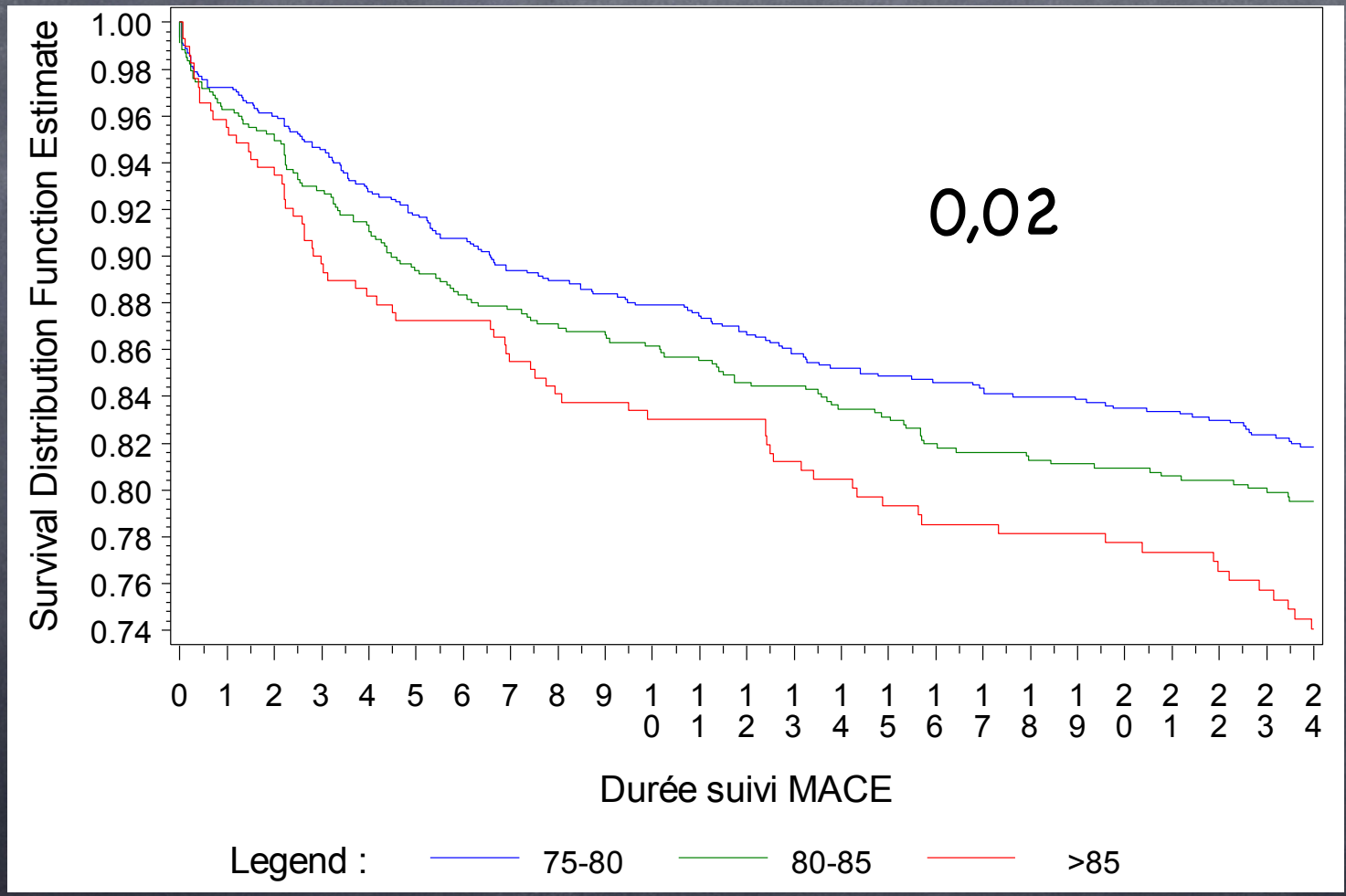


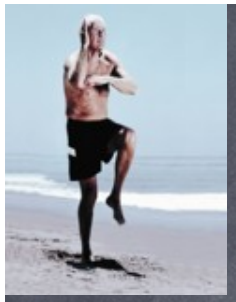
MACE /CLASSE AGE 2 ANS



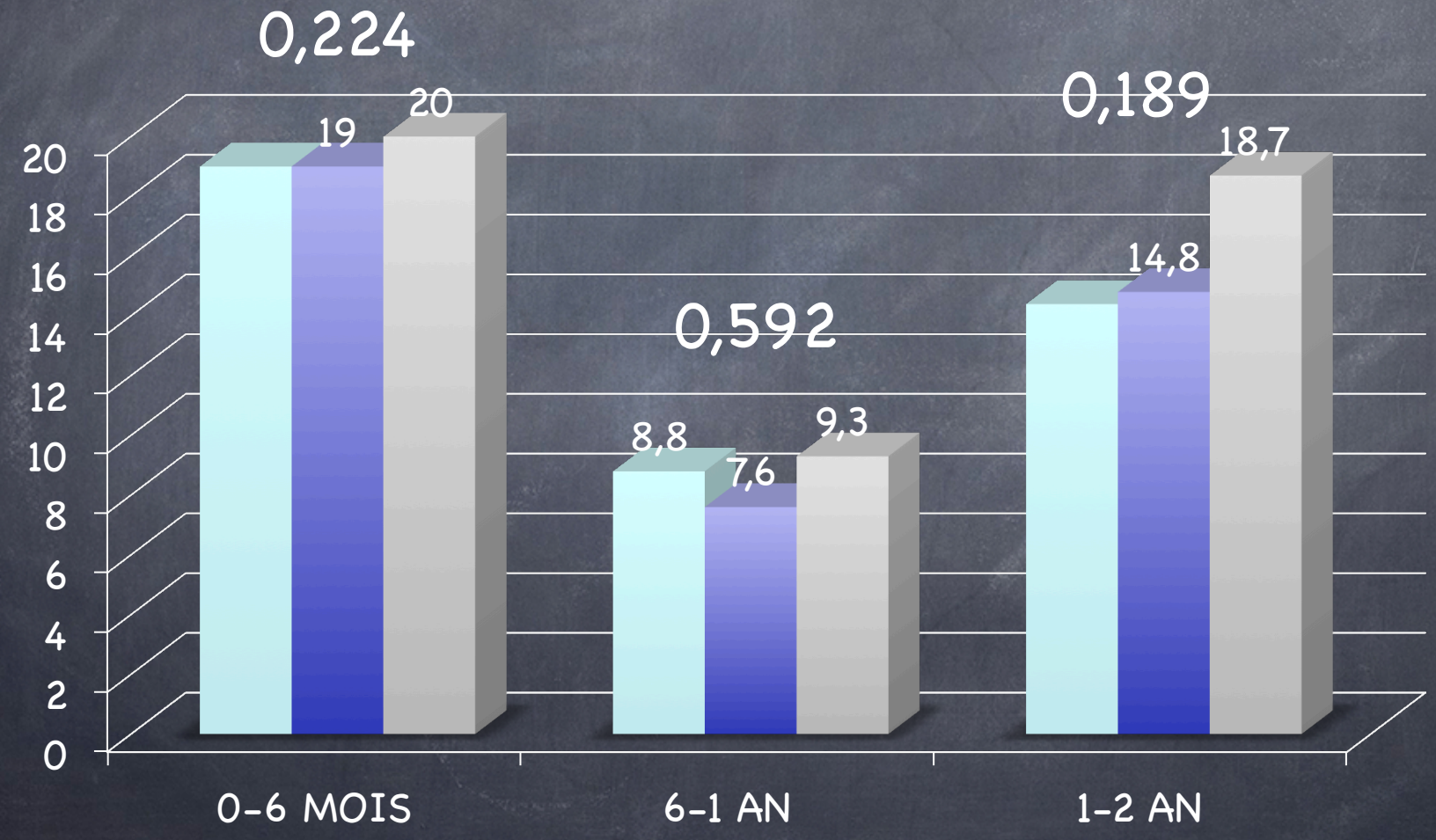


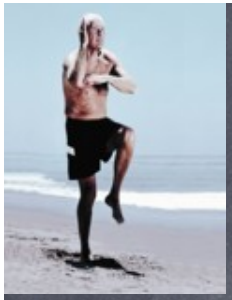
MACE/CLASSE D'AGE 2 ANS



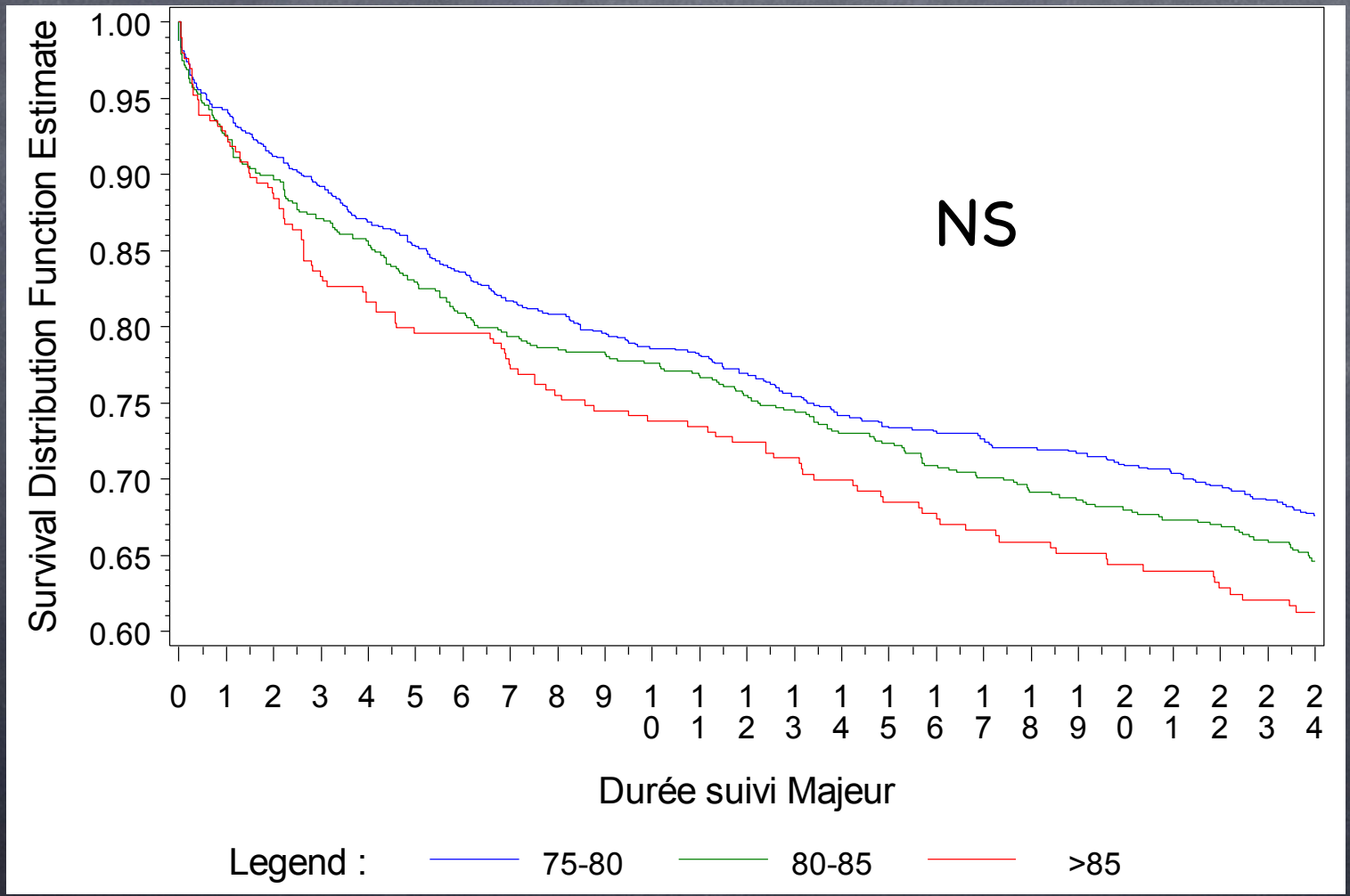


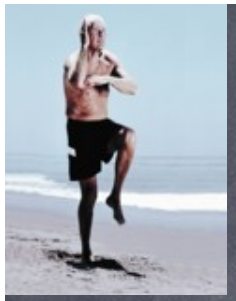
EVENEMENTS MAJEURS / CLASSE AGE 2 ANS



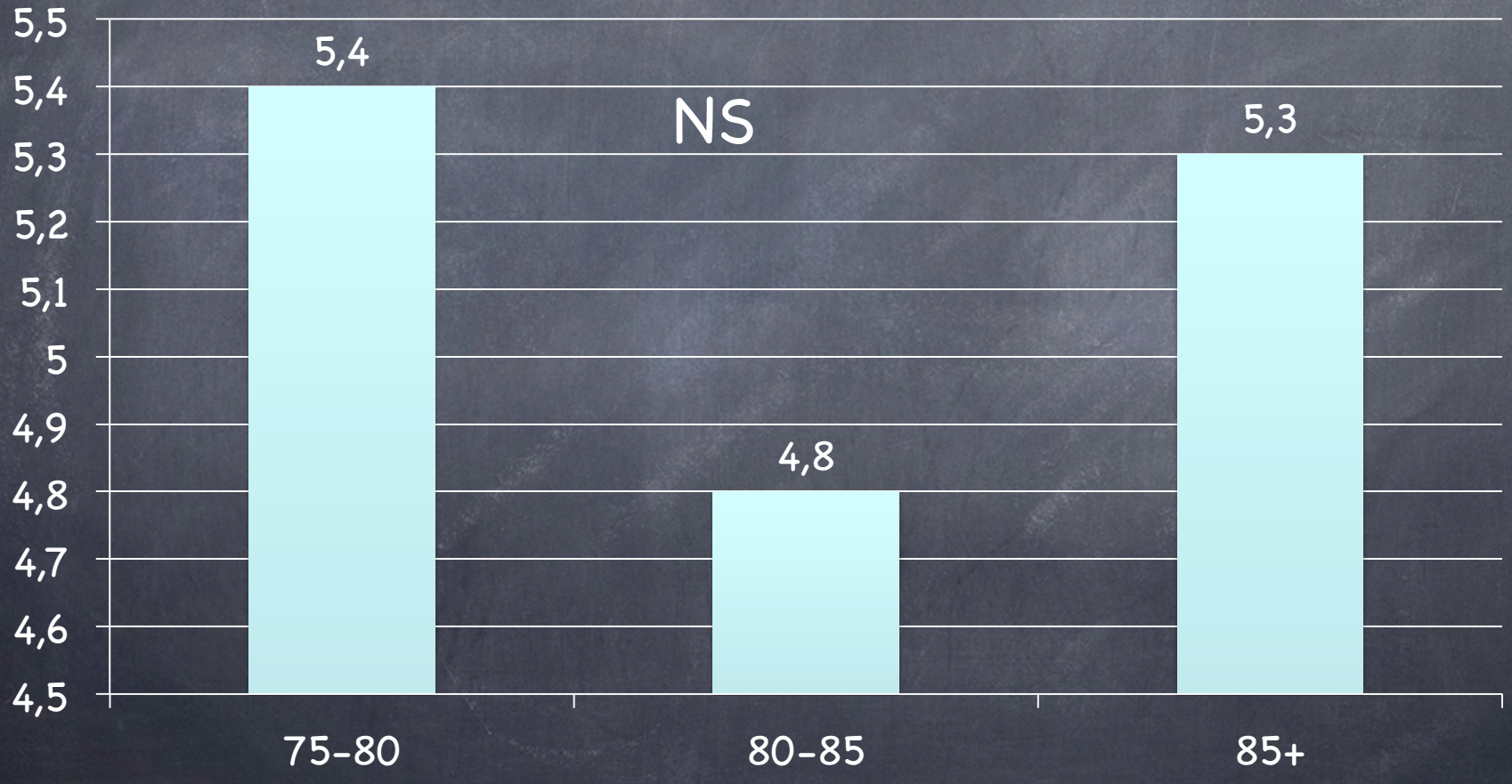


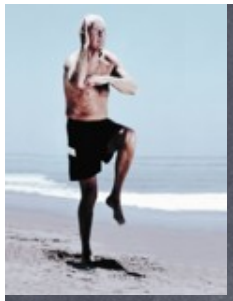
EVENEMENTS INDESIRABLES MAJEURS 2 ANS



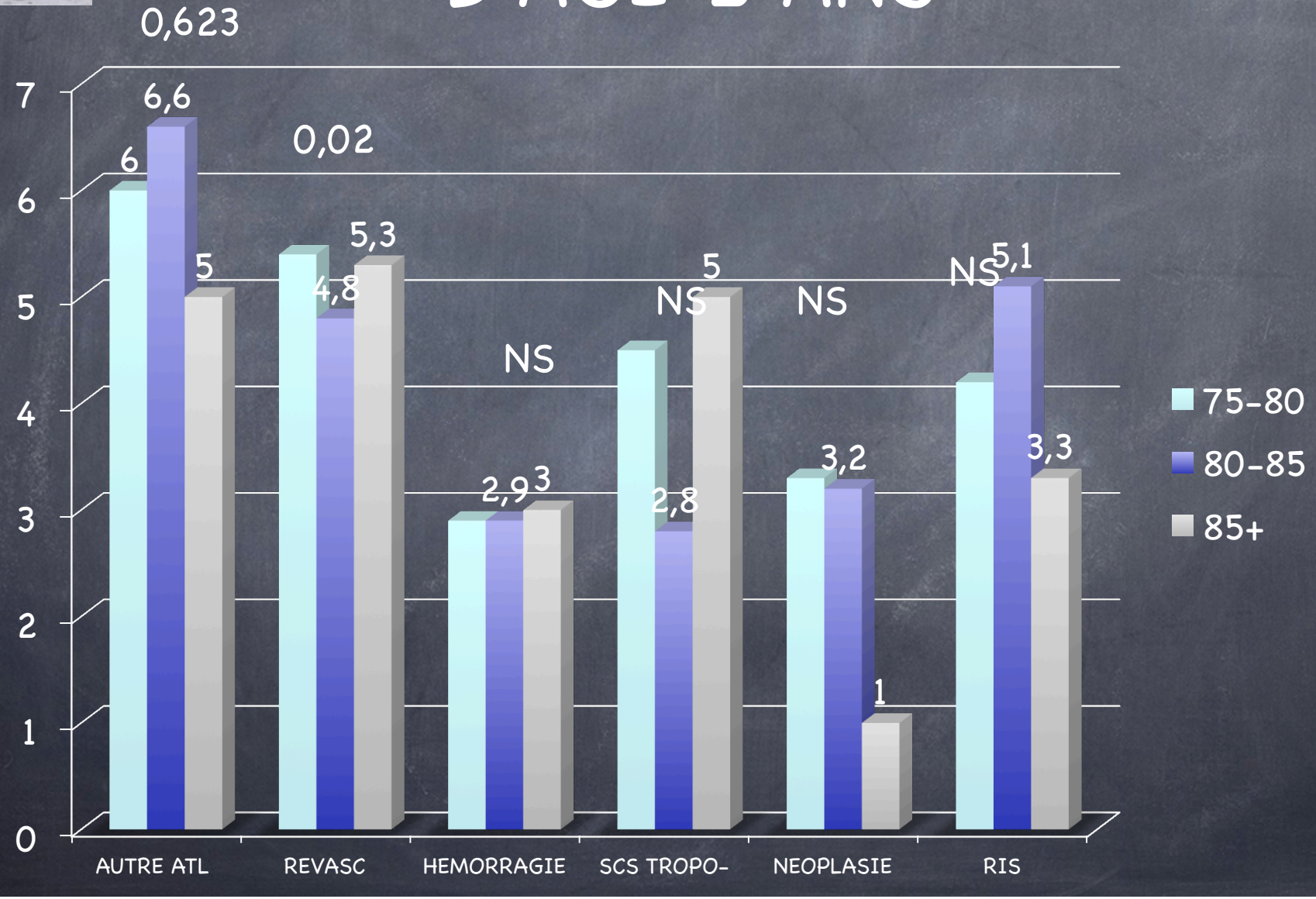


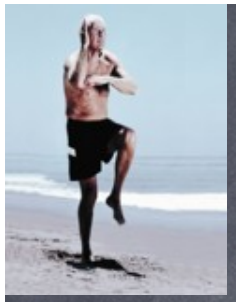
REVASCULARISATION/CLASSE D'AGE 2 ANS



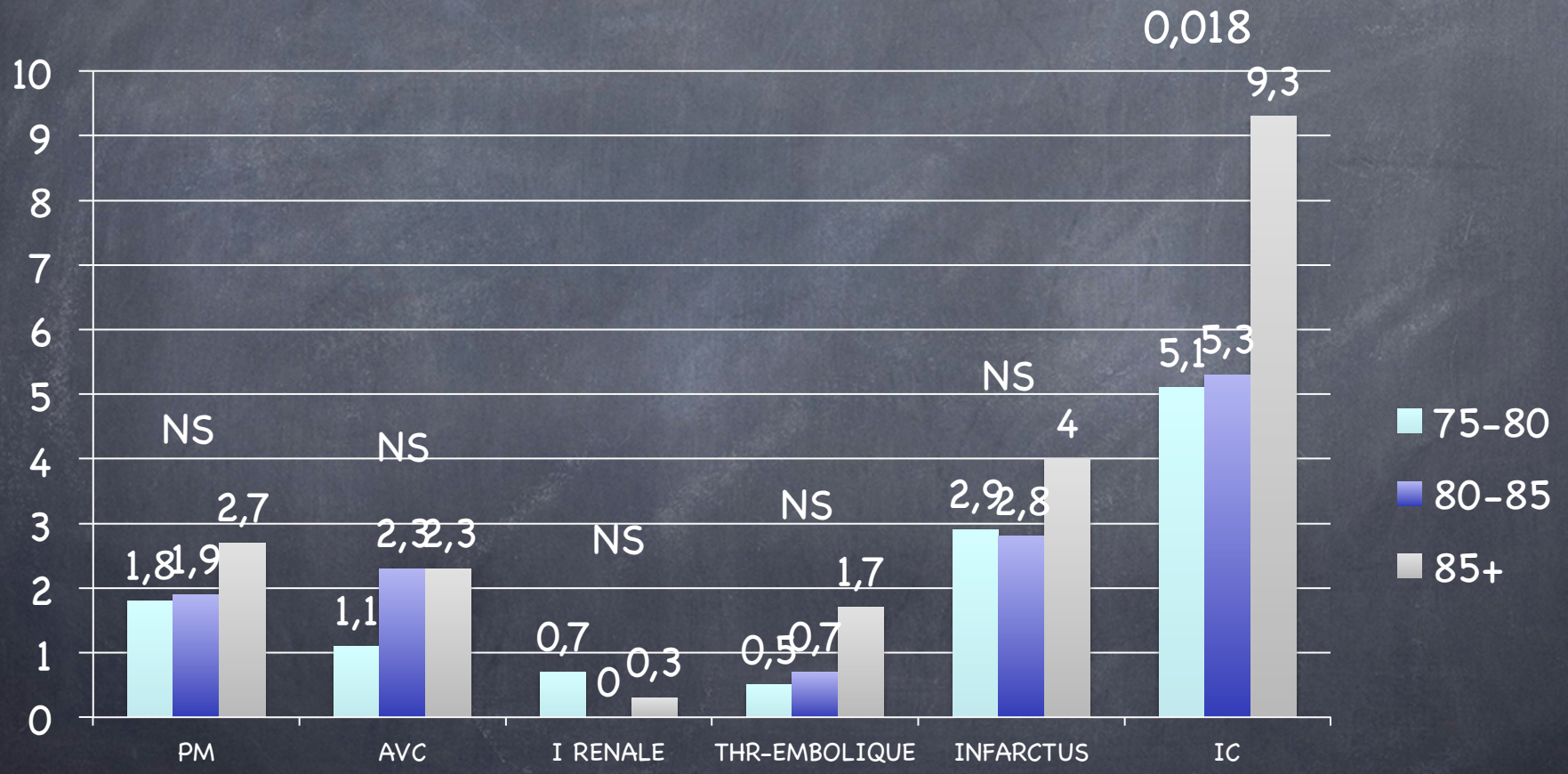


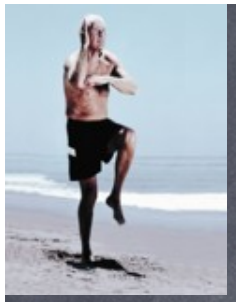
TYPE D'EVENEMENTS/CLASSE D'AGE 2 ANS



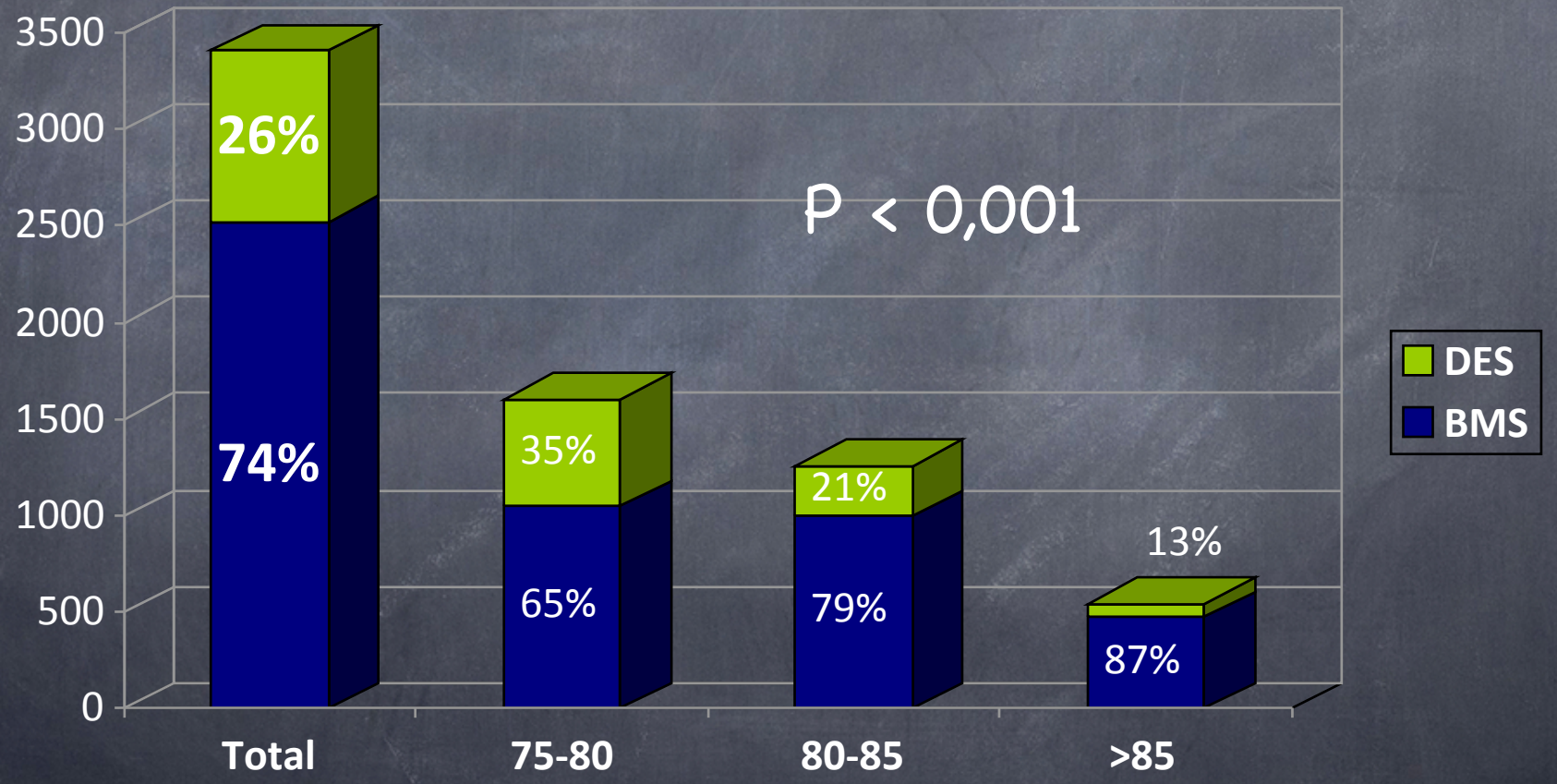


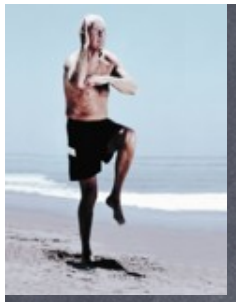
TYPE D'EVENEMENTS/CLASSE D'AGE 2 ANS



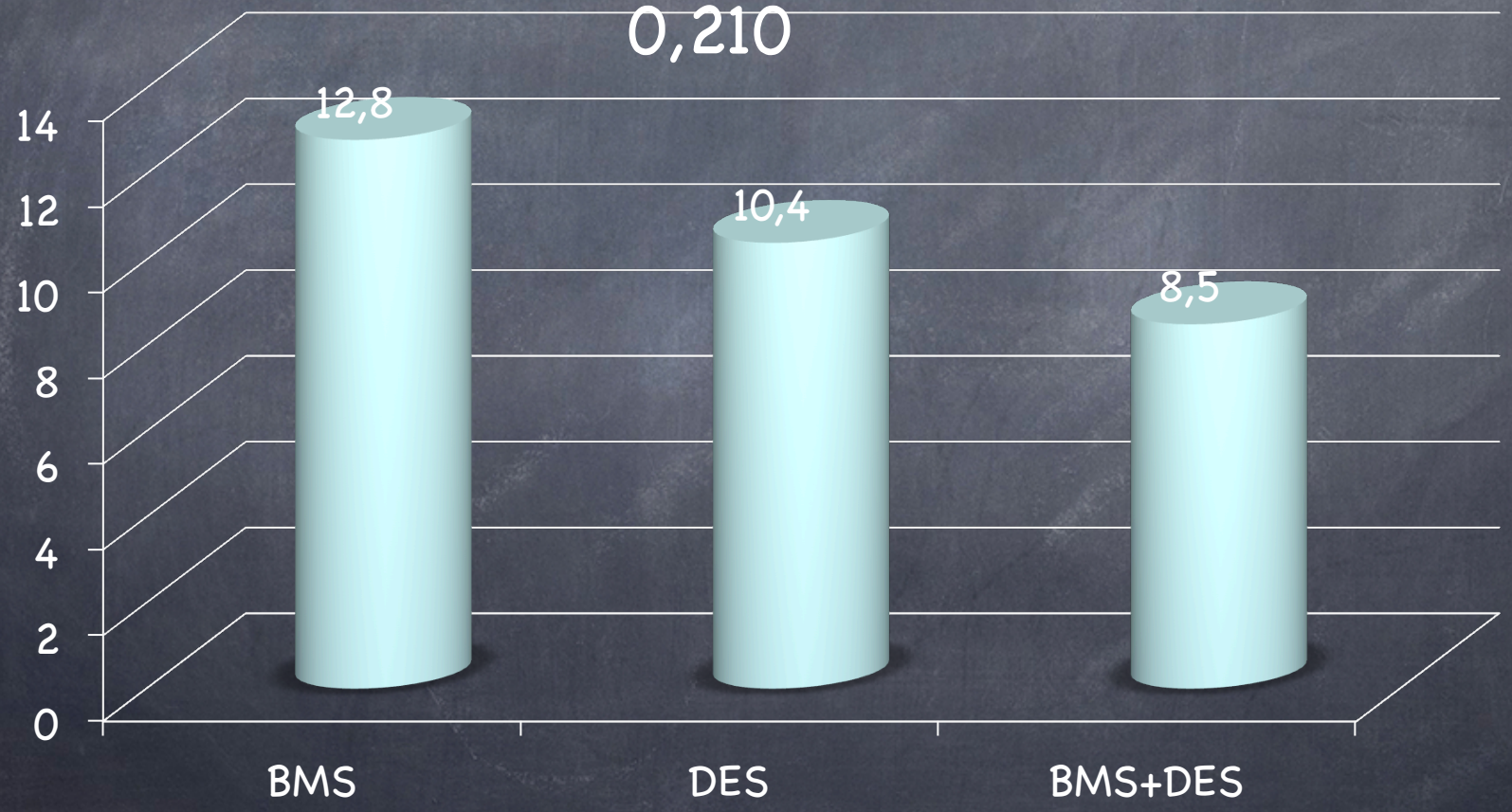


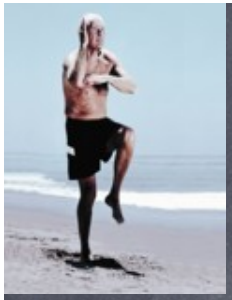
Type de Stent/Age



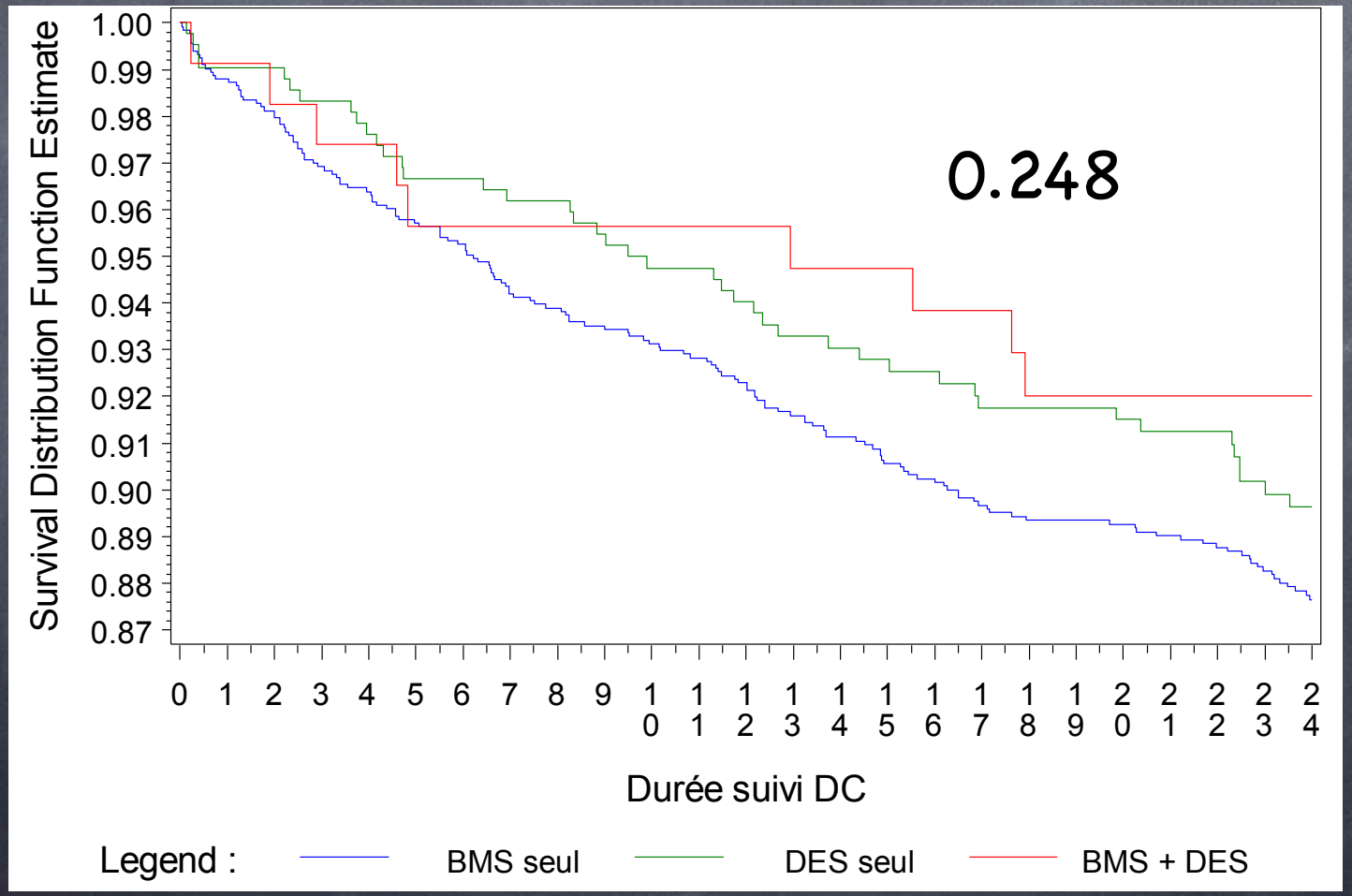


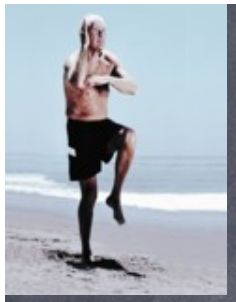
DECES/STENT



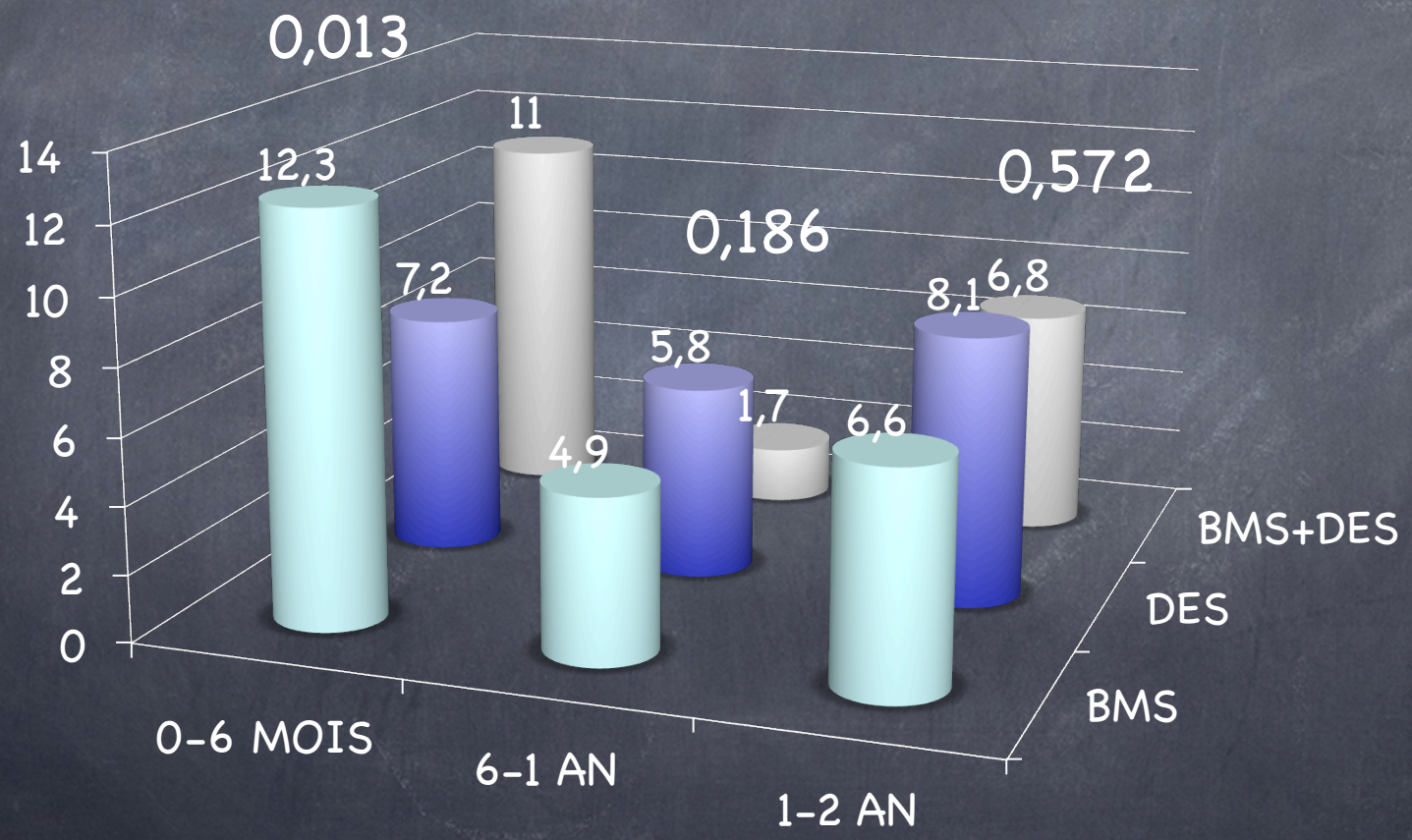


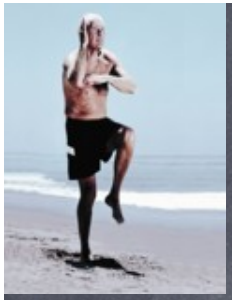
DECES / Stent


Survival Distribution Function Estimate
1.00
0.99
0.98
0.97
0.96
0.95
0.94
0.93
0.92
0.91
0.90
0.89
0.88
0.87
0.248
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Durée suivi DC
Legend :
BMS seul
DES seul
BMS + DES

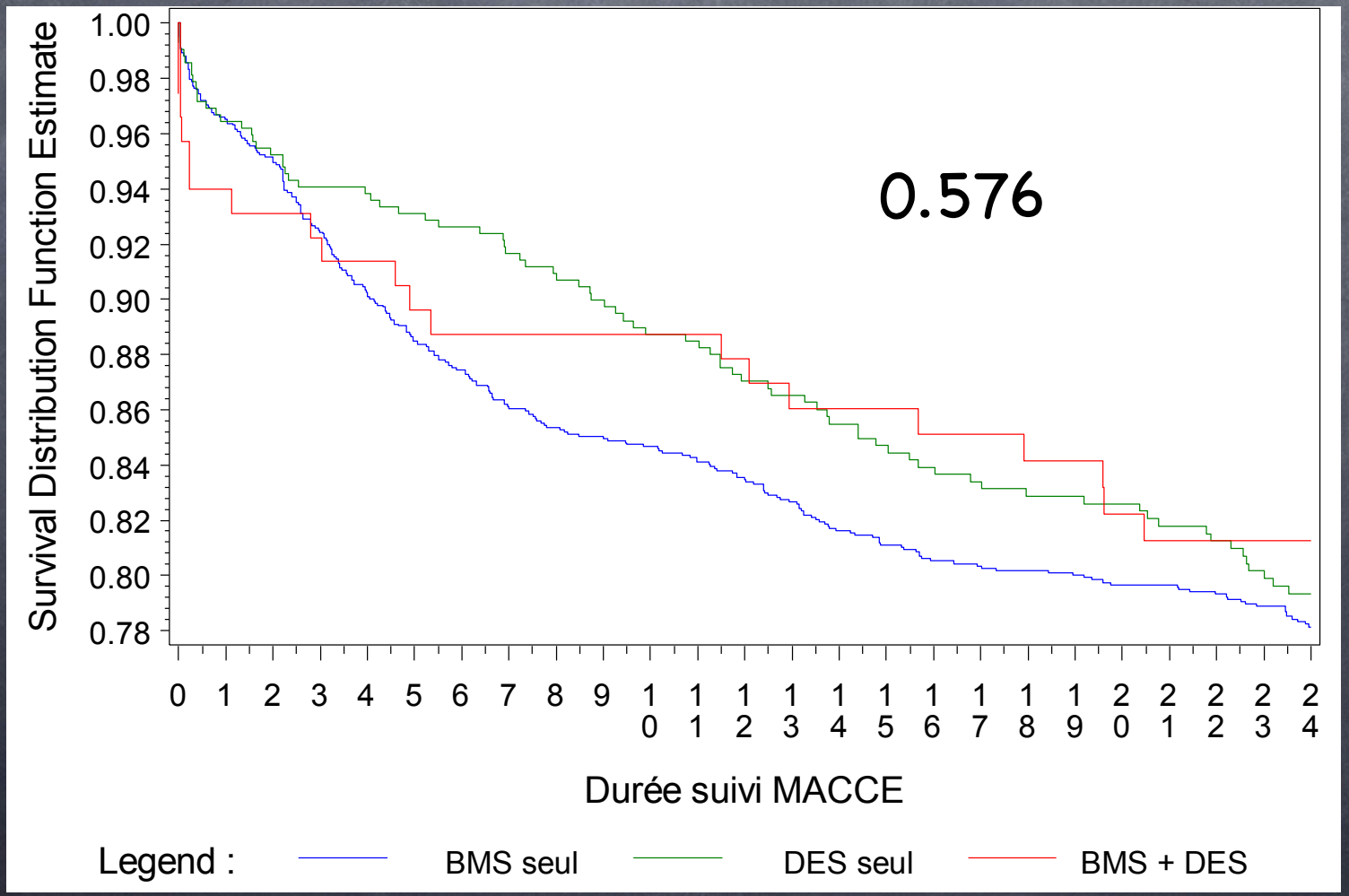


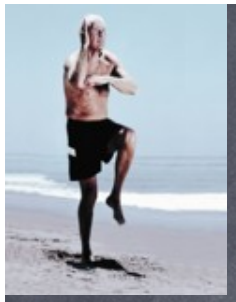
MACCE/STENT/SUIVIS



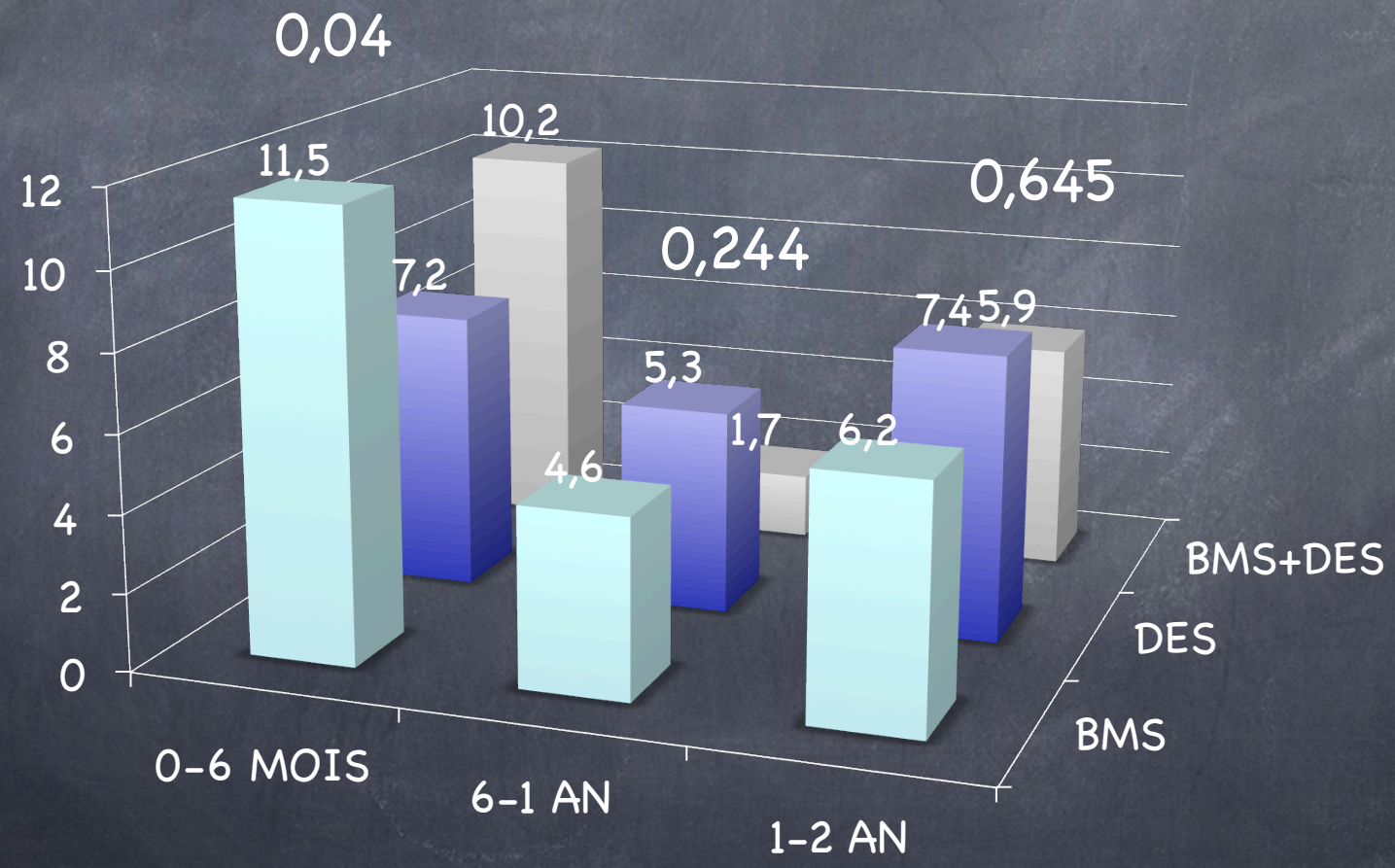


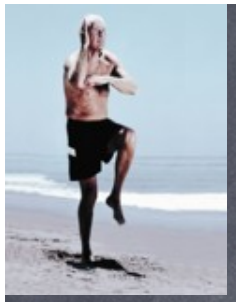
MACCE/STENT


Survival Distribution Function Estimate
1.00
0.98
0.96
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.78
0.576
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Durée suivi MACCE
Legend :
BMS seul
DES seul
BMS + DES

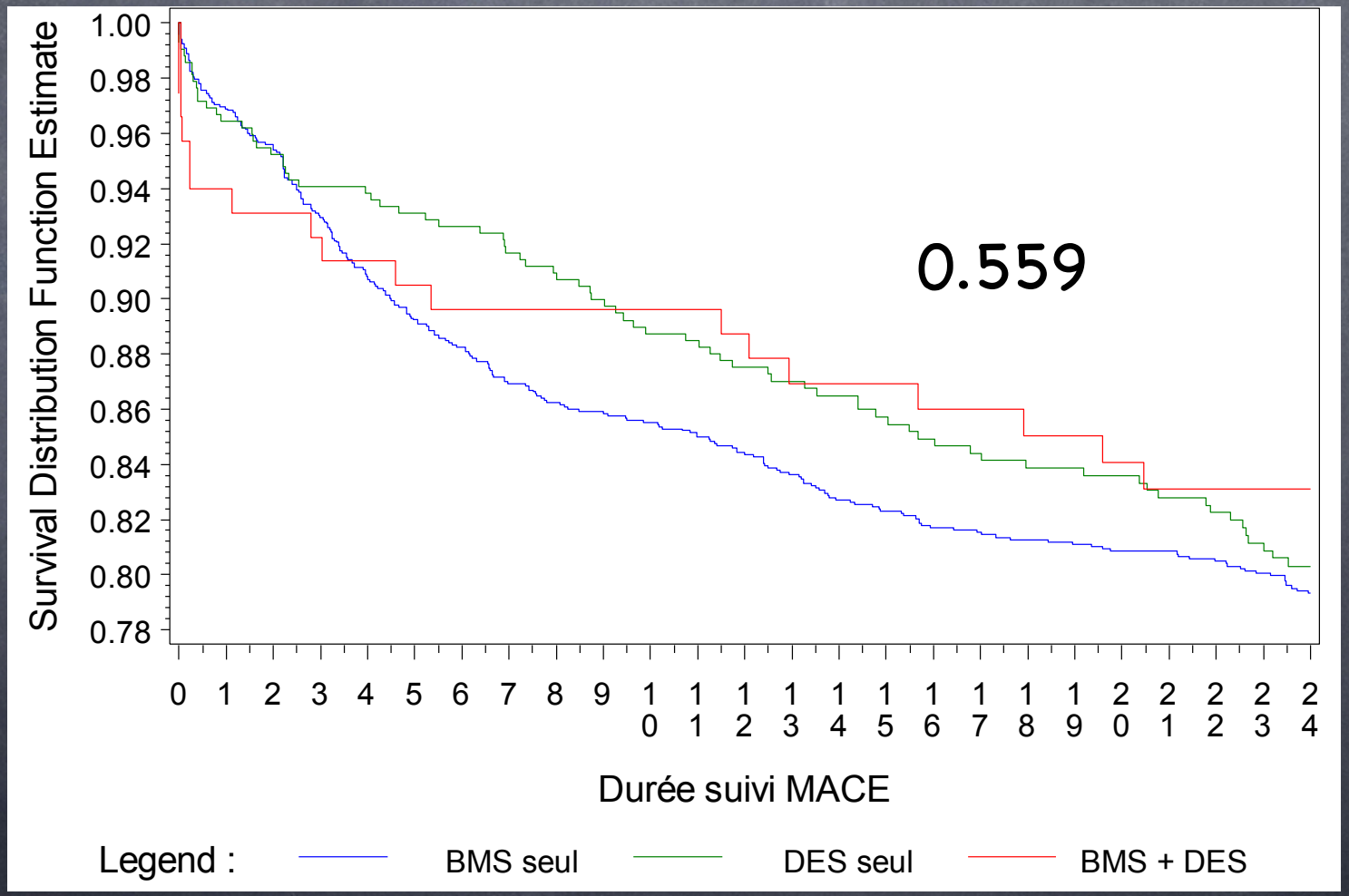


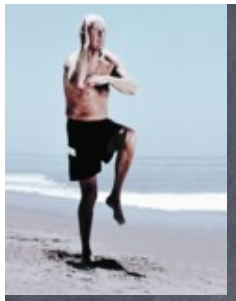
MACE/STENT/SUIVIS



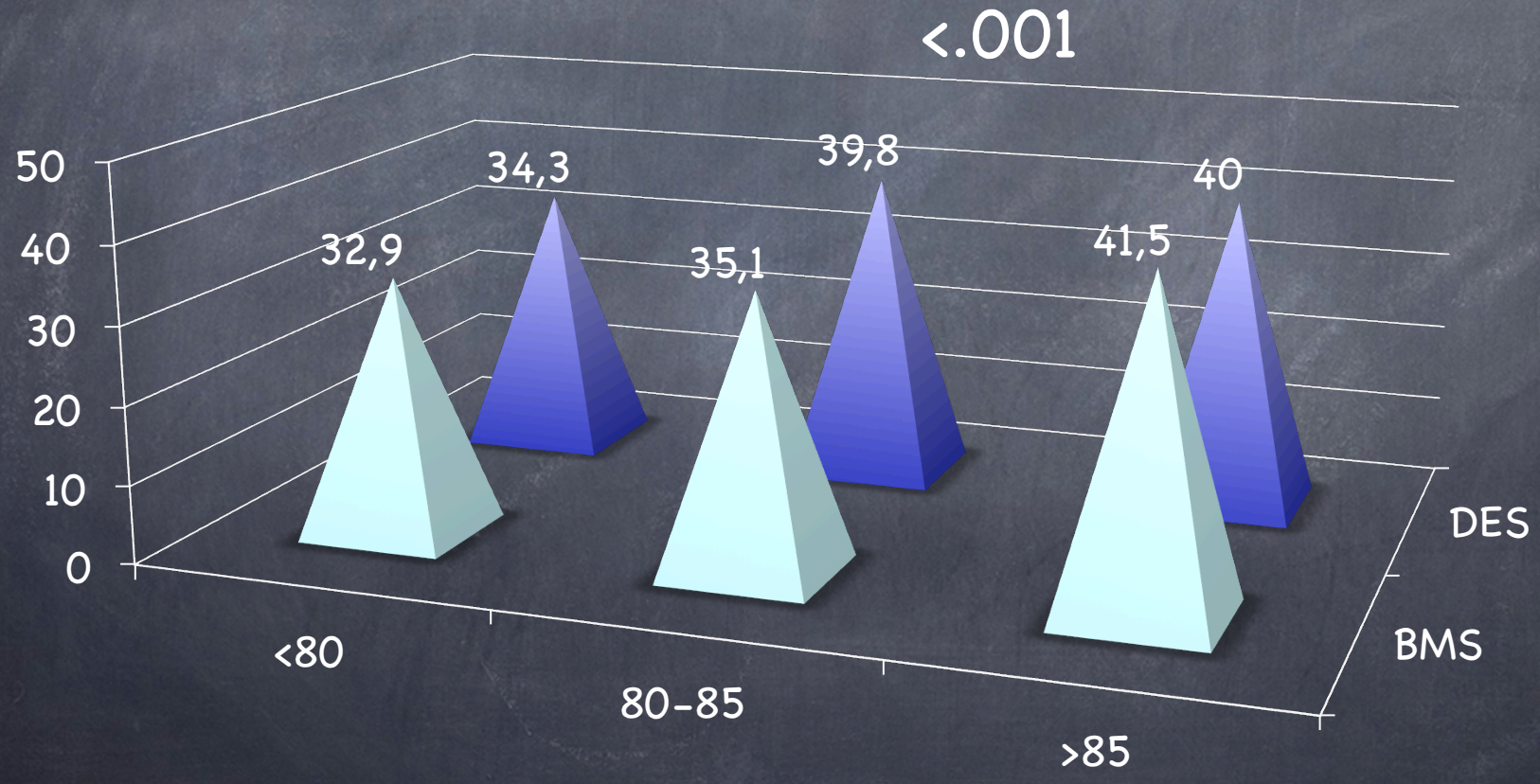


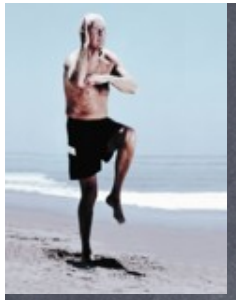
MACE/STENT


Survival Distribution Function Estimate
1.00
0.98
0.96
0.94
0.92
0.90
0.88
0.86
0.84
0.82
0.80
0.78
0.559
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24
Durée suivi MACE
Legend :
BMS seul
DES seul
BMS + DES

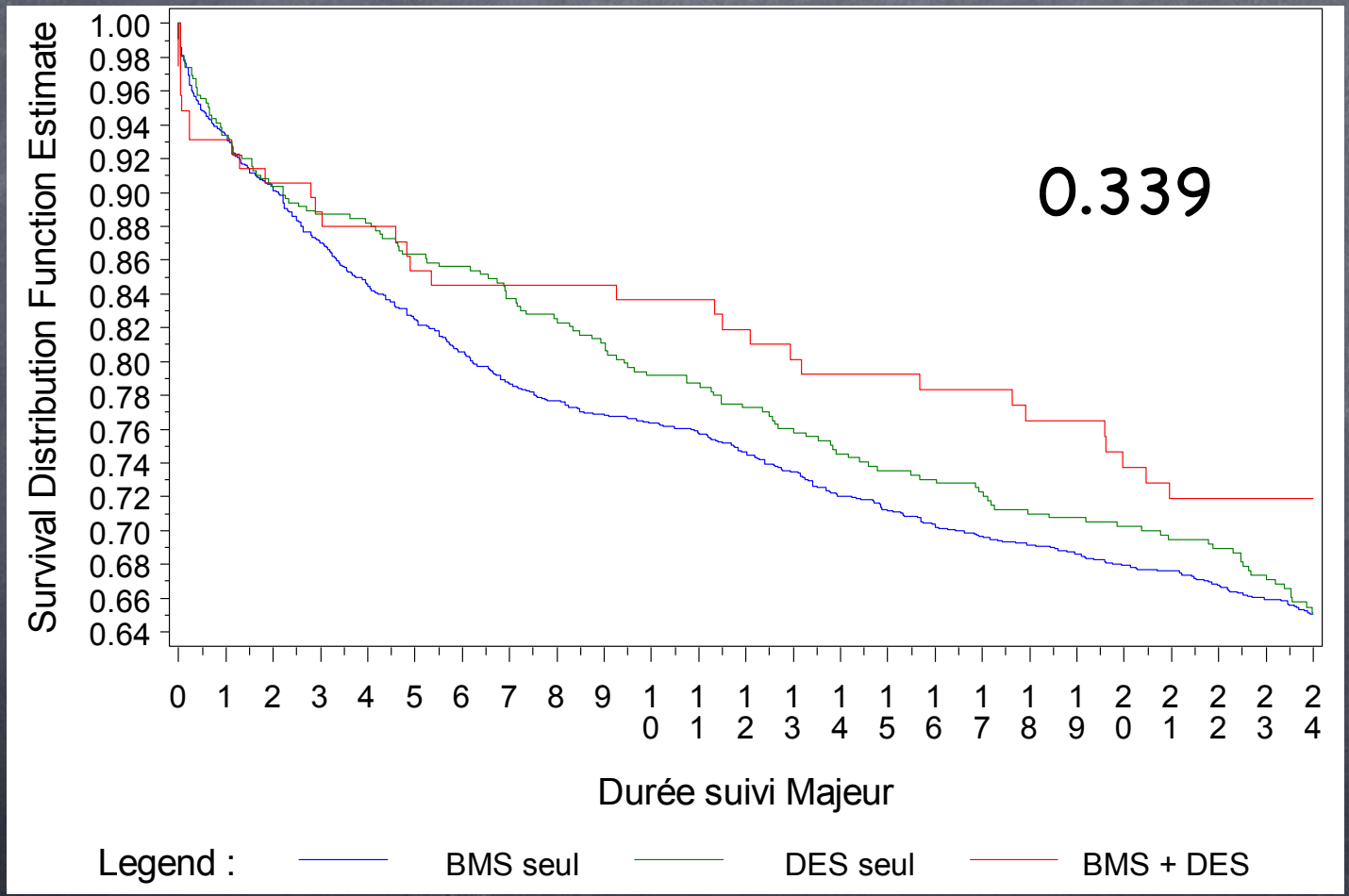


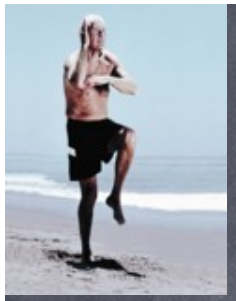
EVNTS MAJEURS/AGE/STENT



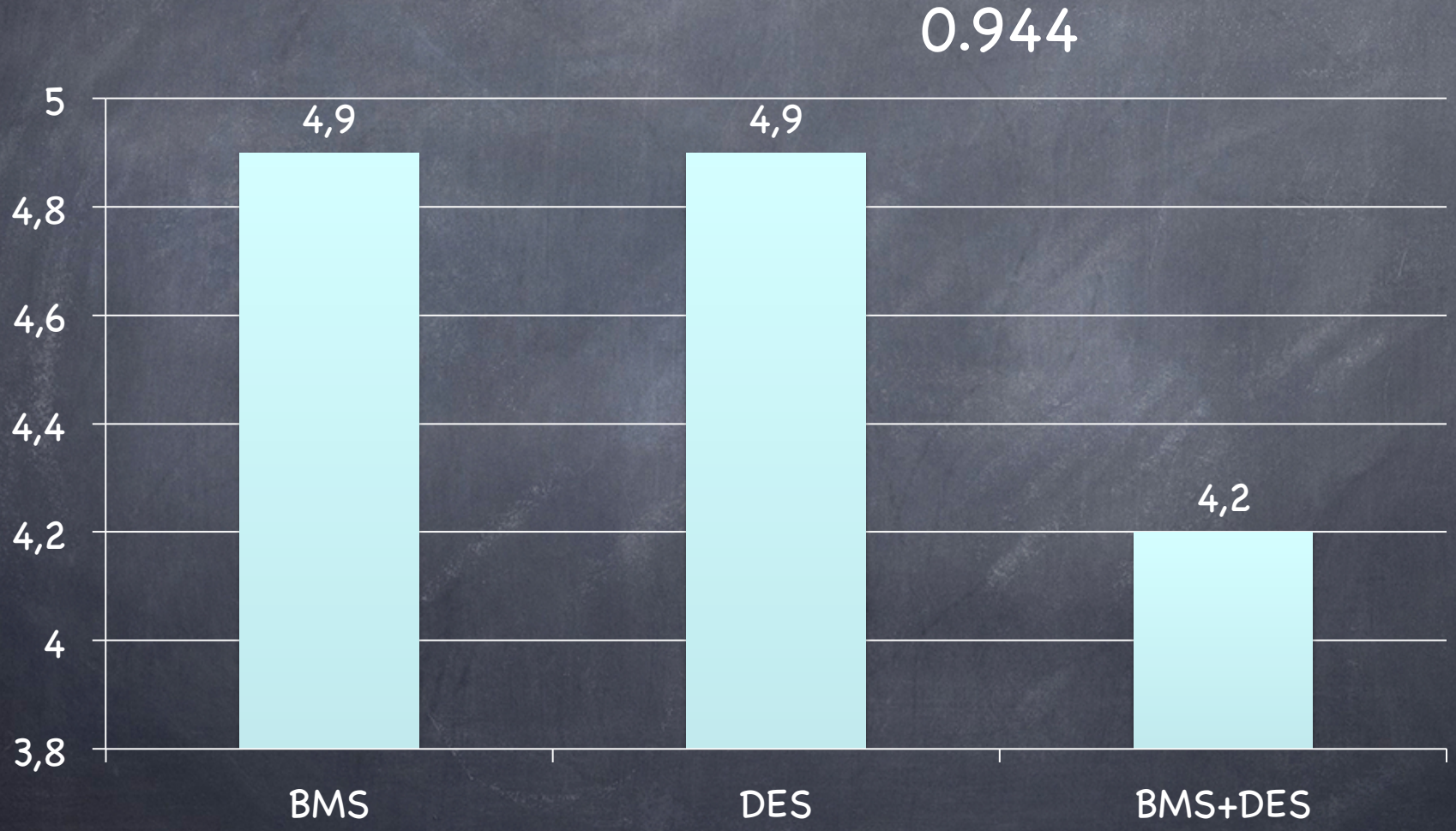


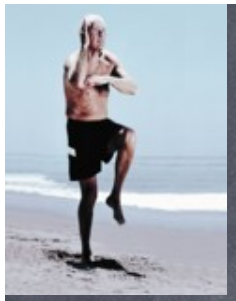
EVENTS MAJEURS/STENT



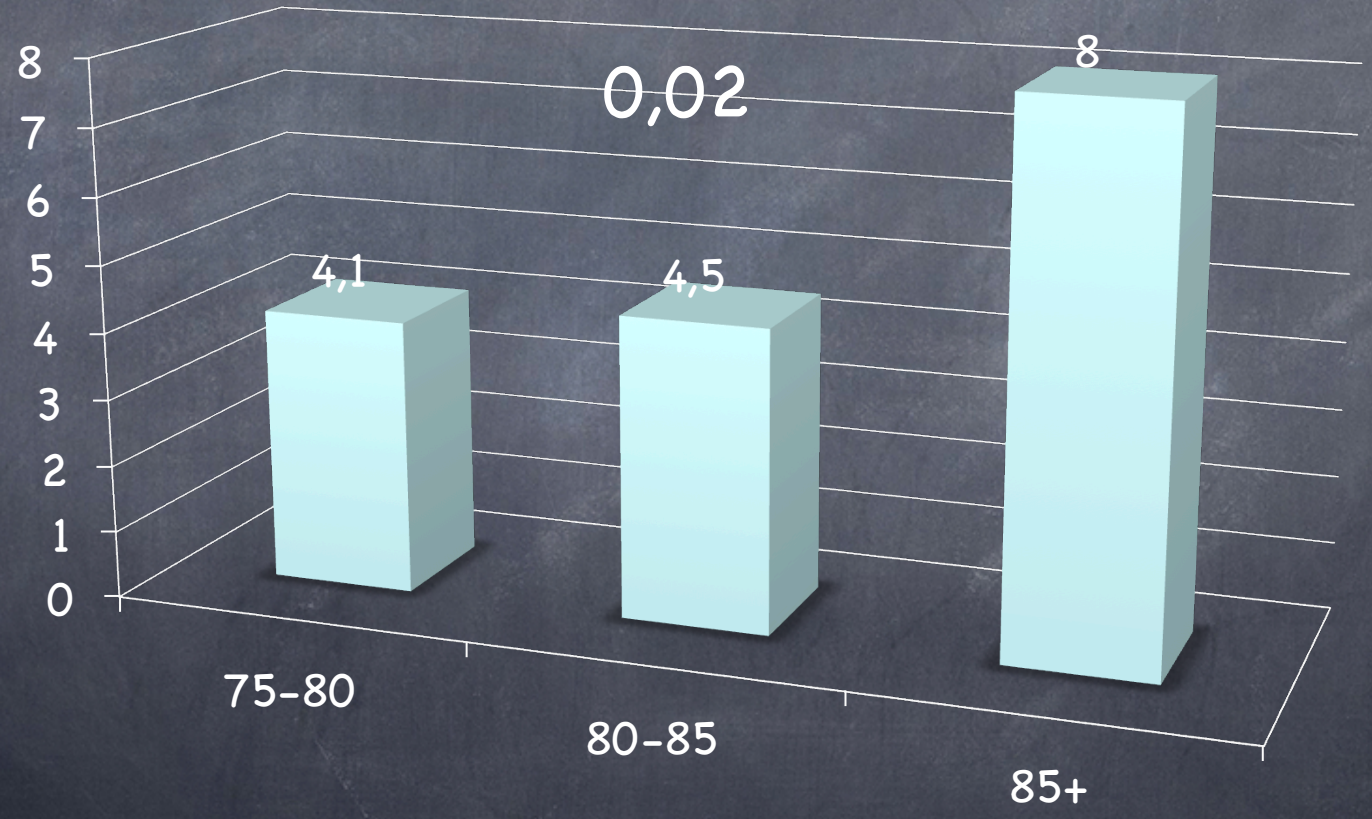


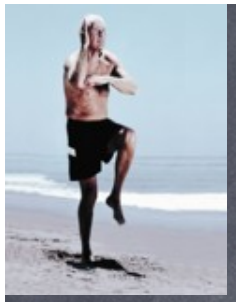
THROMBOSE DE STENT/STENT



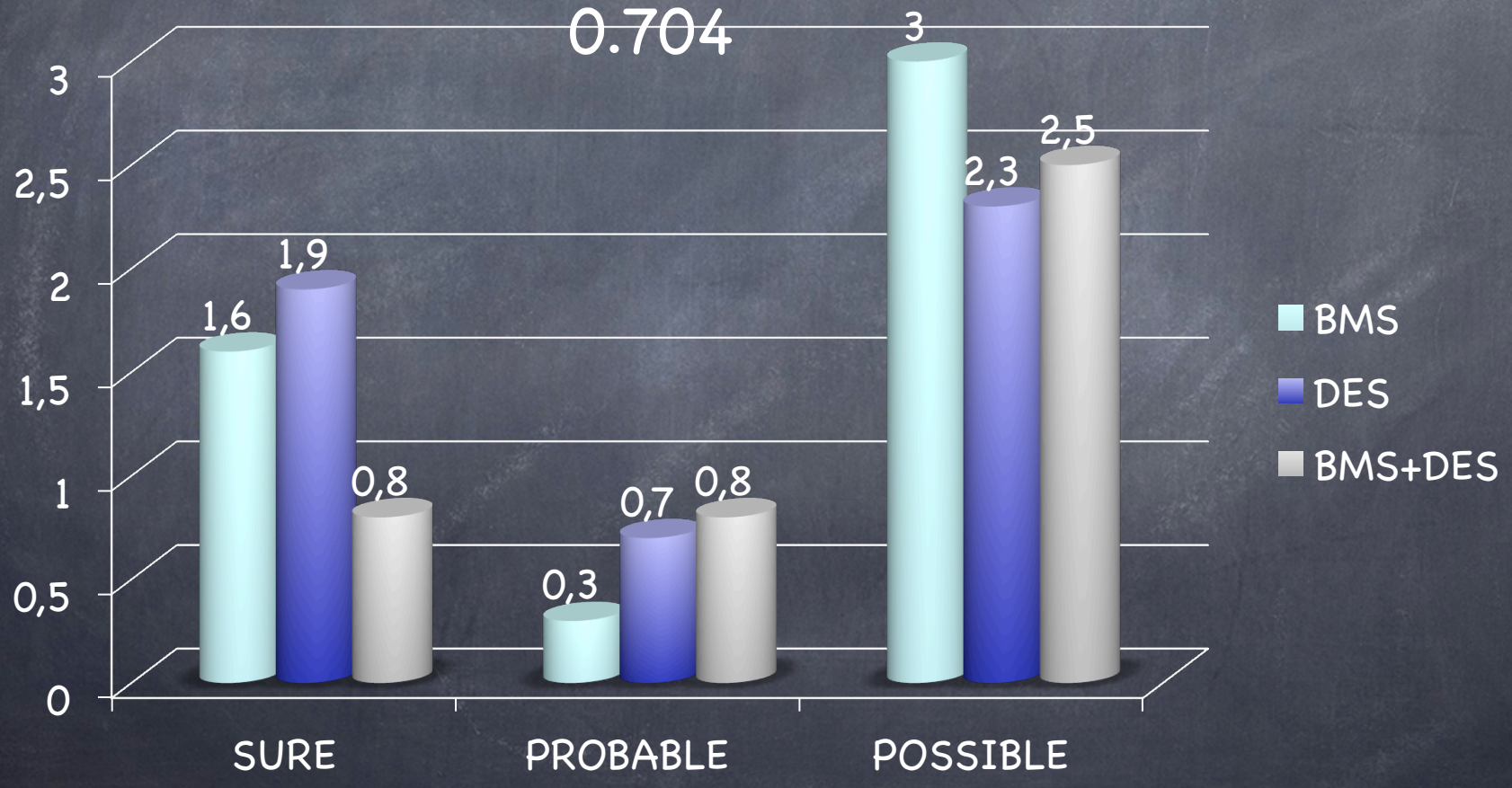


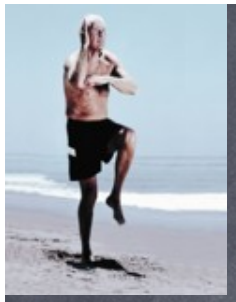
THROMBOSE DE STENT/ CLASSE AGE 2 ANS



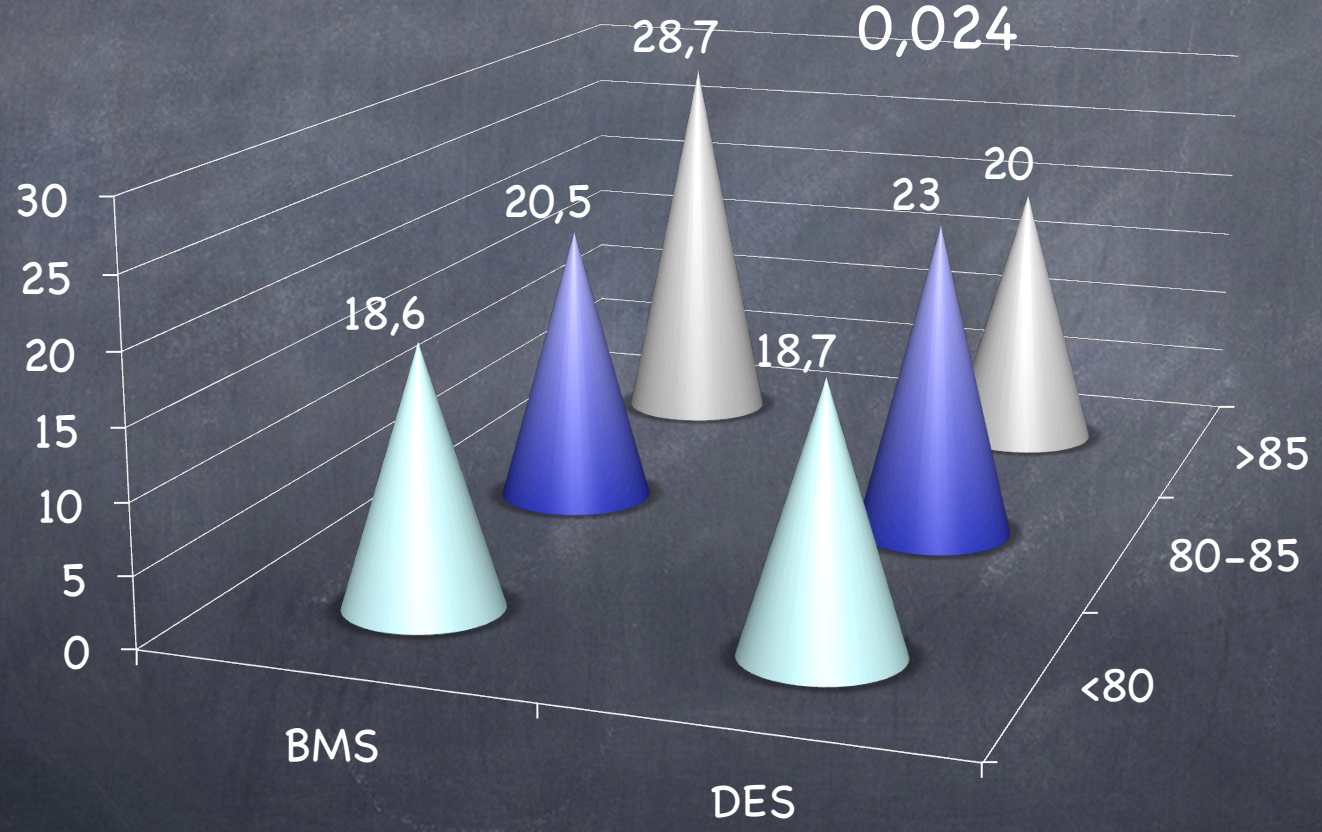


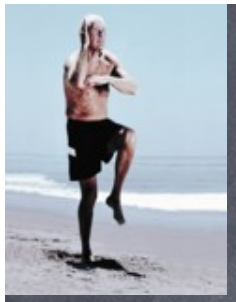
THROMBOSE DE STENT/ DEFINITION ARC



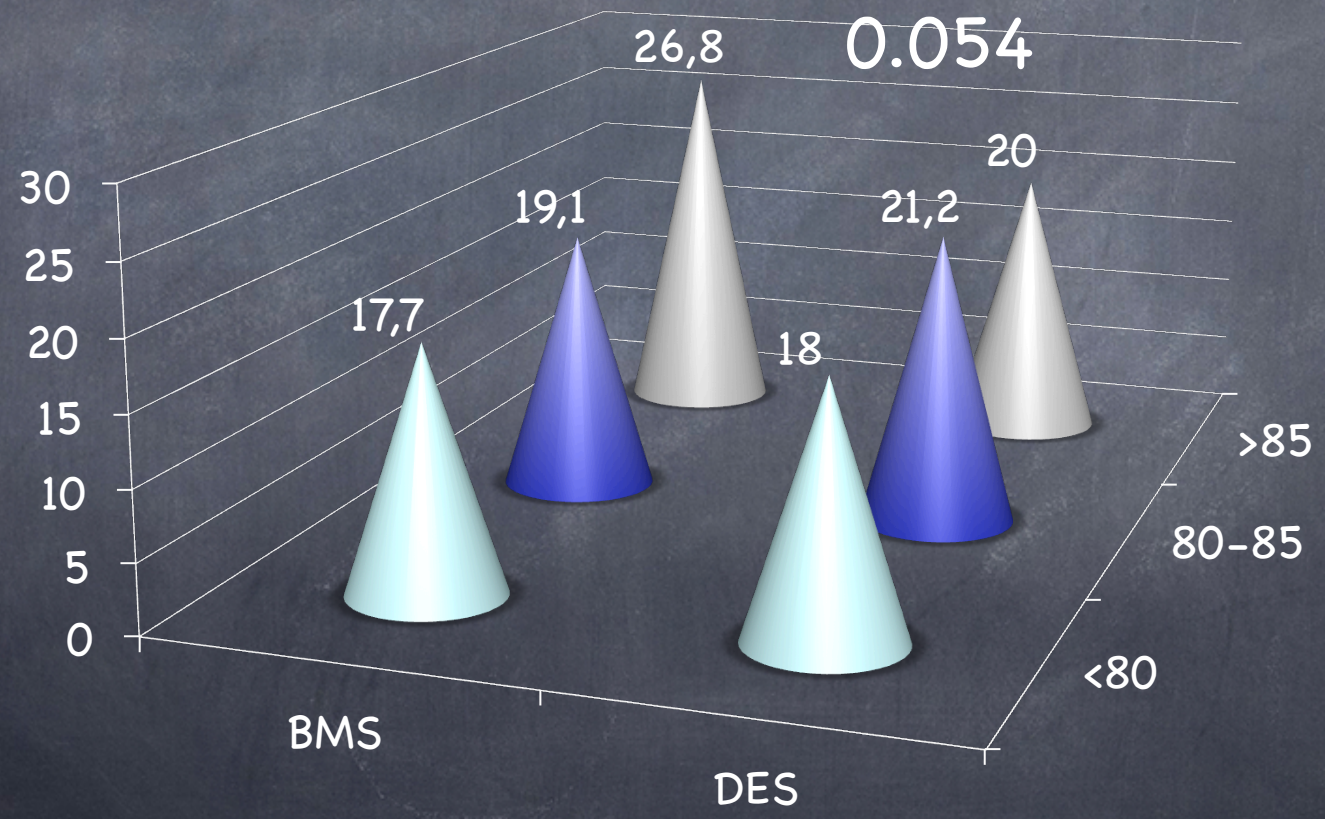


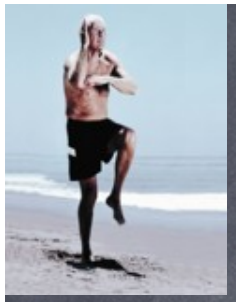
MACCE/AGE/STENT



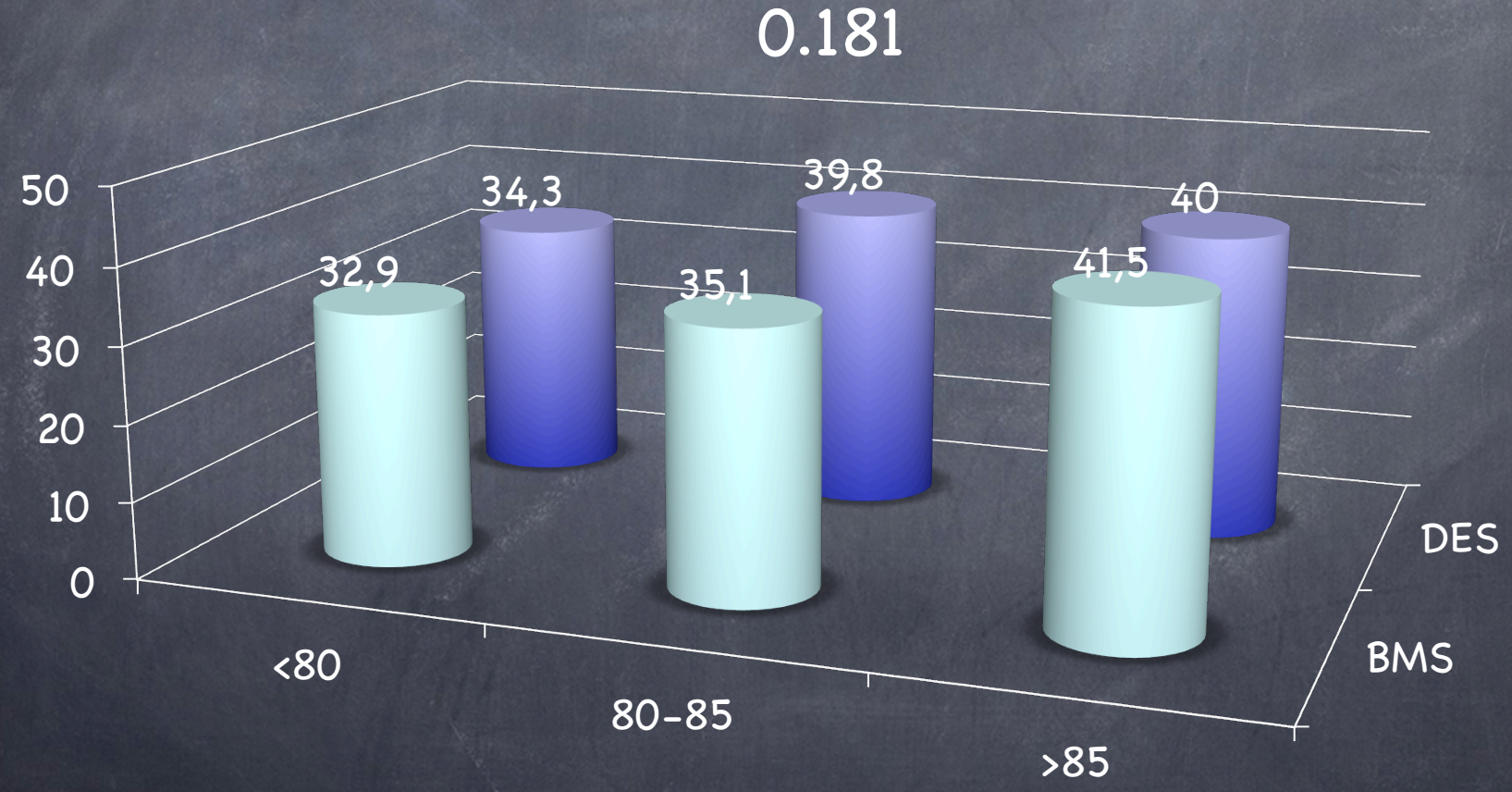


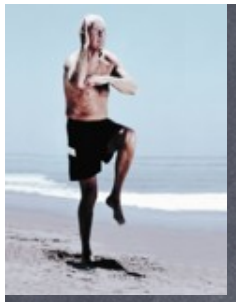
MACE/AGE/STENT



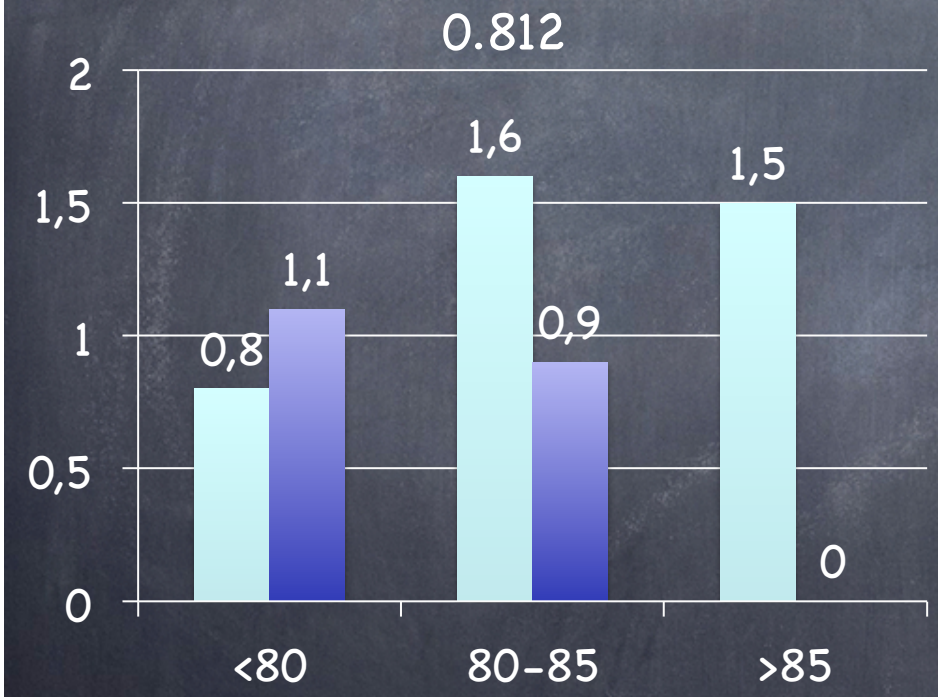


EVNTS MAJEURS/AGE/STENT

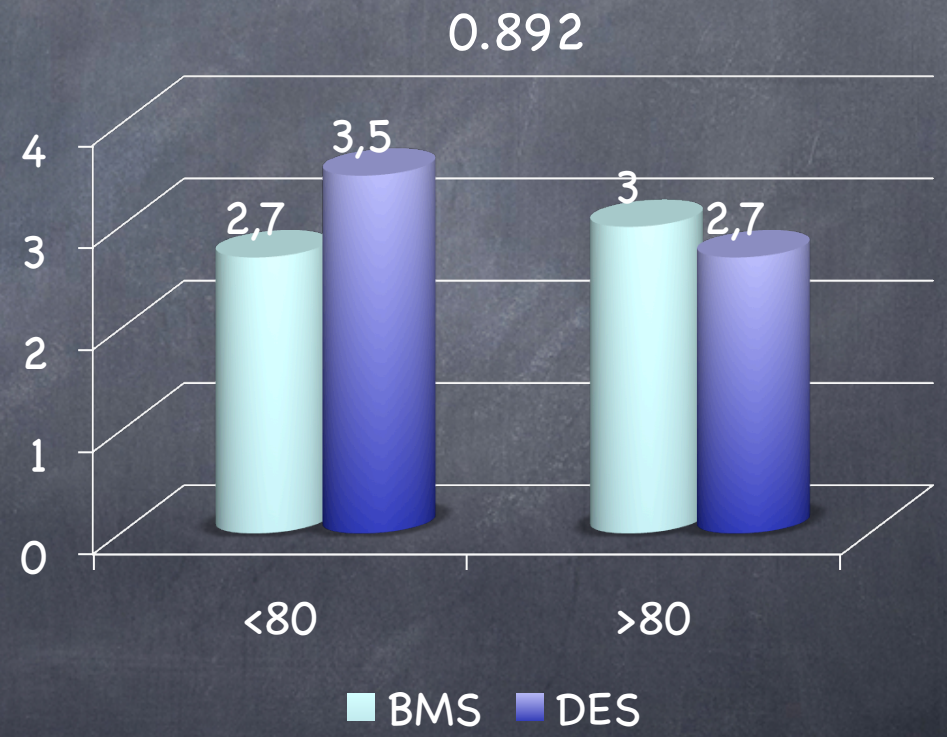


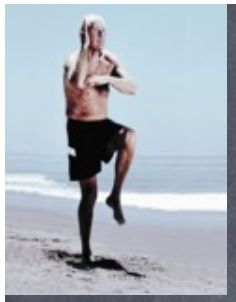


STROKE/AGE/STENT

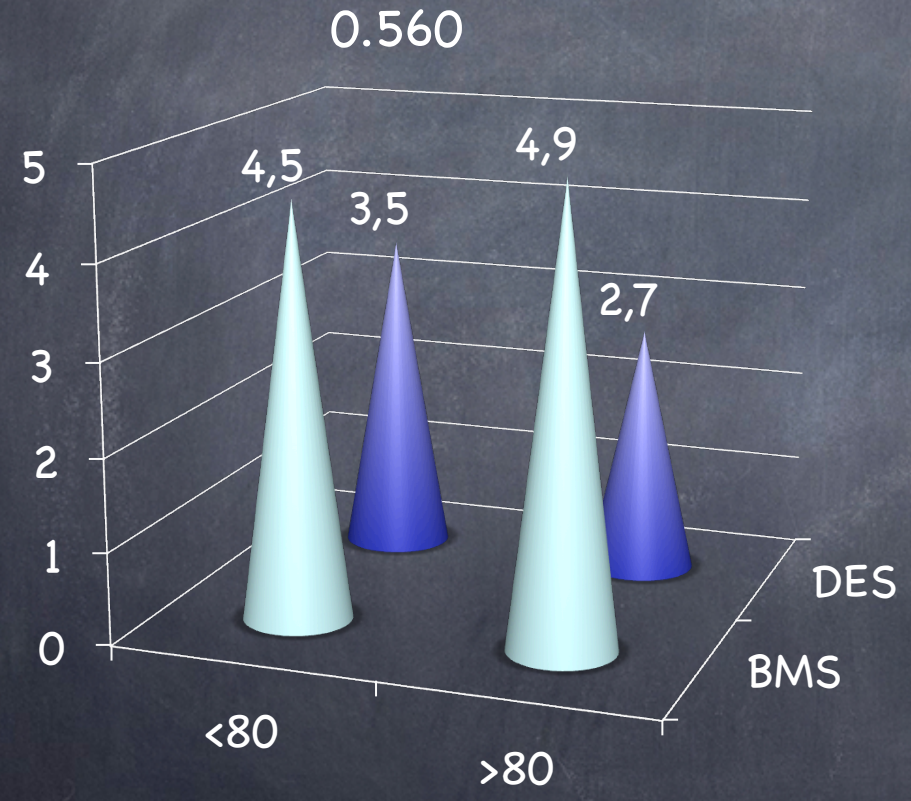


SAIGNEMENT/AGE/STENT

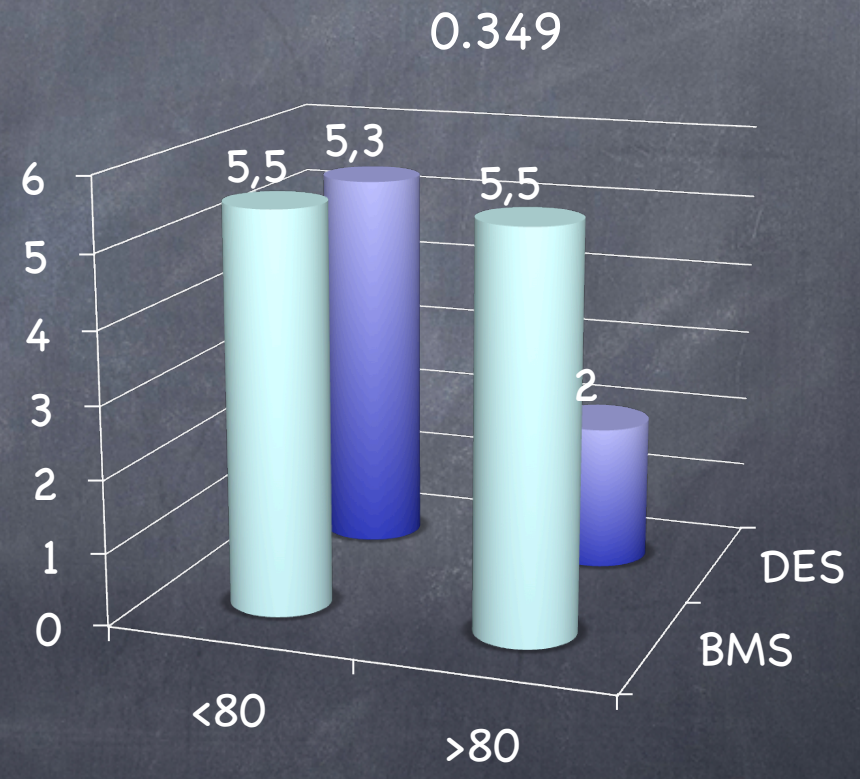


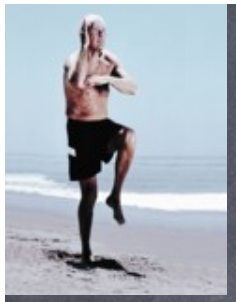


RIS/STENT/AGE

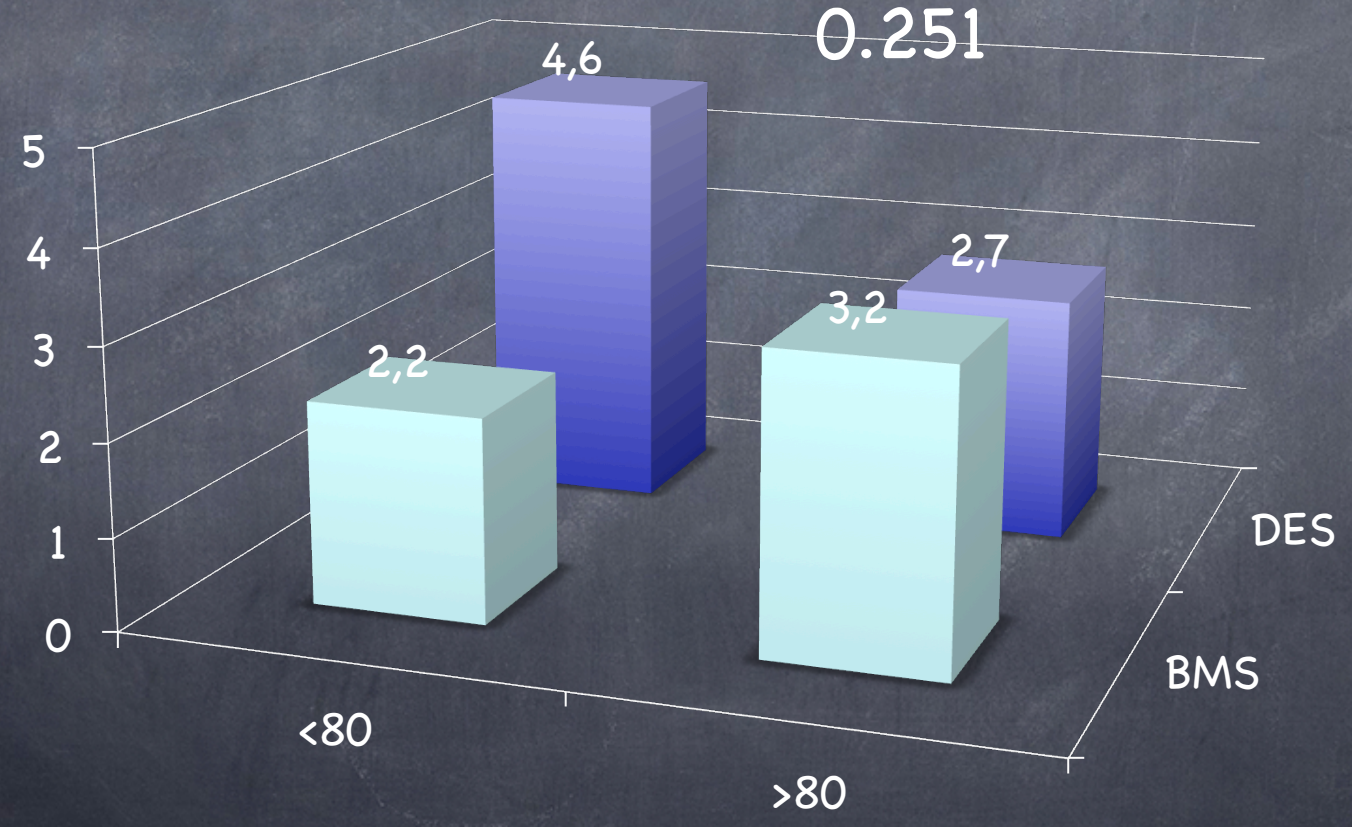


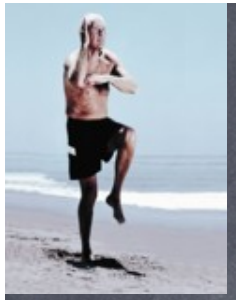
REVASC/STENT/AGE





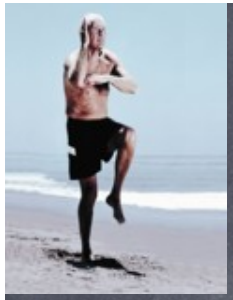
IDM/STENT/AGE



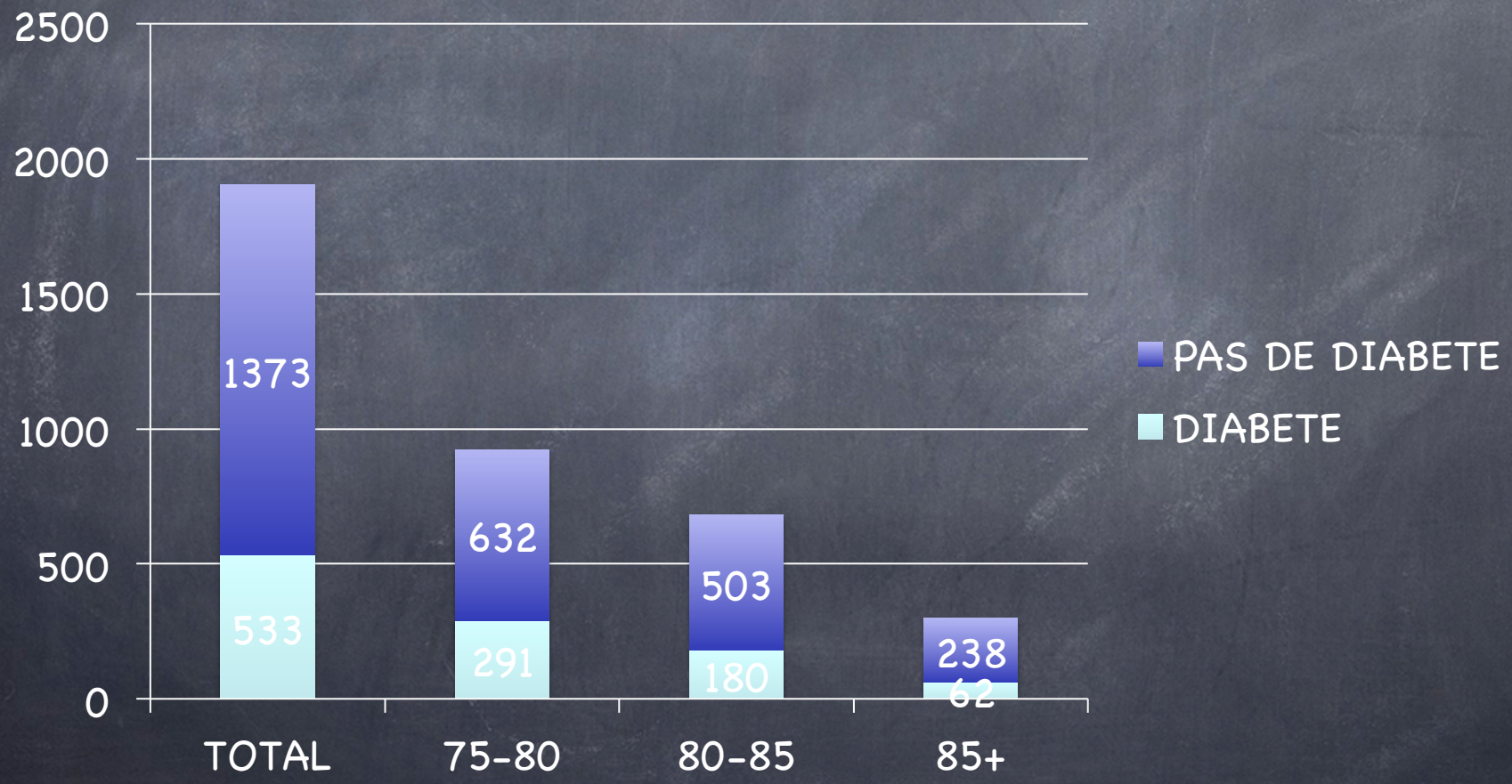


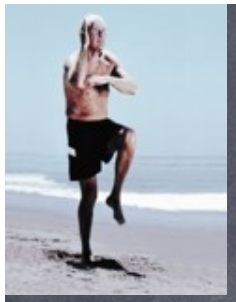
Time After PCI	DES	BMS	p Value
DES patients compared with matched contemporary BMS controls			
Mortality			
90 days	3.0	4.4	<0.001
1 yr	6.5	8.9	<0.001
2 yrs	10.7	13.5	<0.001
Hospitalization for subsequent AMI			
1 yr	7.2	9.3	<0.001
2 yrs	9.2	11.2	<0.001
Coronary revascularization			
1 yr	12.6	14.6	<0.001
2 yrs	17.2	19.1	<0.001
Combined end points†			
1 yr	21.7	26.2	<0.001
2 yrs	29.8	34.4	<0.001
DES patients compared with matched historical BMS controls			
Mortality			
90 days	2.9	3.7	<0.001
1 yr	6.2	7.9	<0.001
2 yrs	10.4	12.2	<0.001
Hospitalization for subsequent AMI			
1 yr	7.0	9.2	<0.001
2 yrs	8.9	11.4	<0.001
Coronary revascularization			
1 yr	12.6	15.7	<0.001
2 yrs	17.3	20.6	<0.001
Combined end points†			
1 yr	21.4	26.2	<0.001
2 yrs	29.5	34.5	<0.001

Peter W. Groeneveld, J Am Coll Cardiol 2008;51:2017



DIABETIQUES PAR AGE





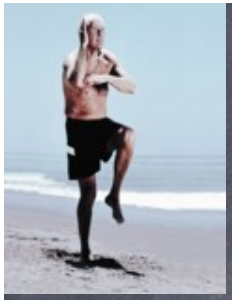
DECES/DIABETE

<.001

25
20
15
10
5
0

10,3
21,4
14,7

NON DIABETES
DIABETES ORAL
DIABETES INSULIN



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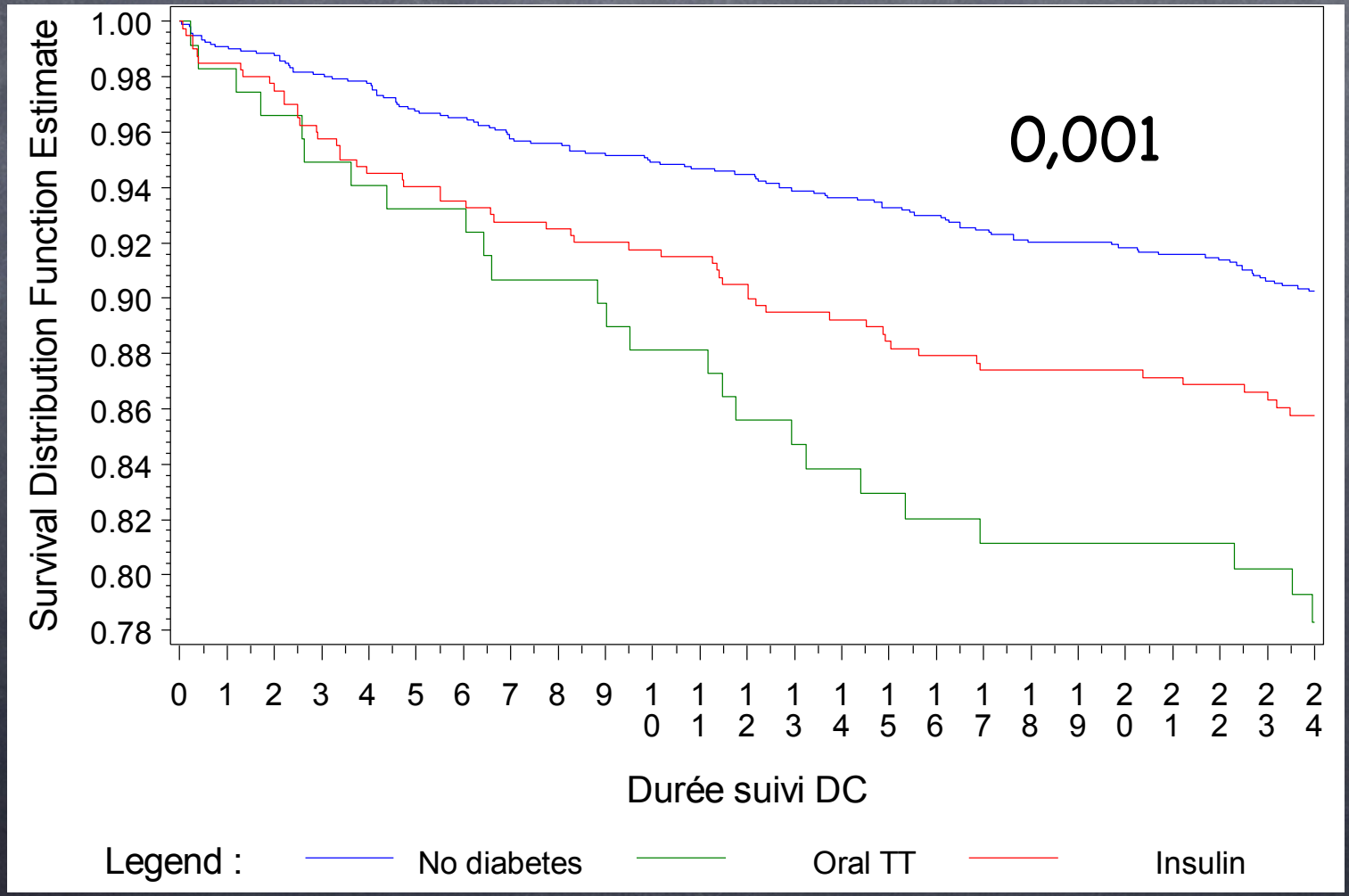
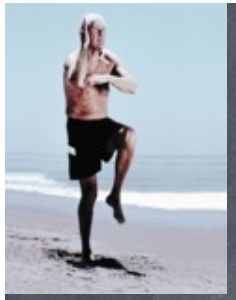
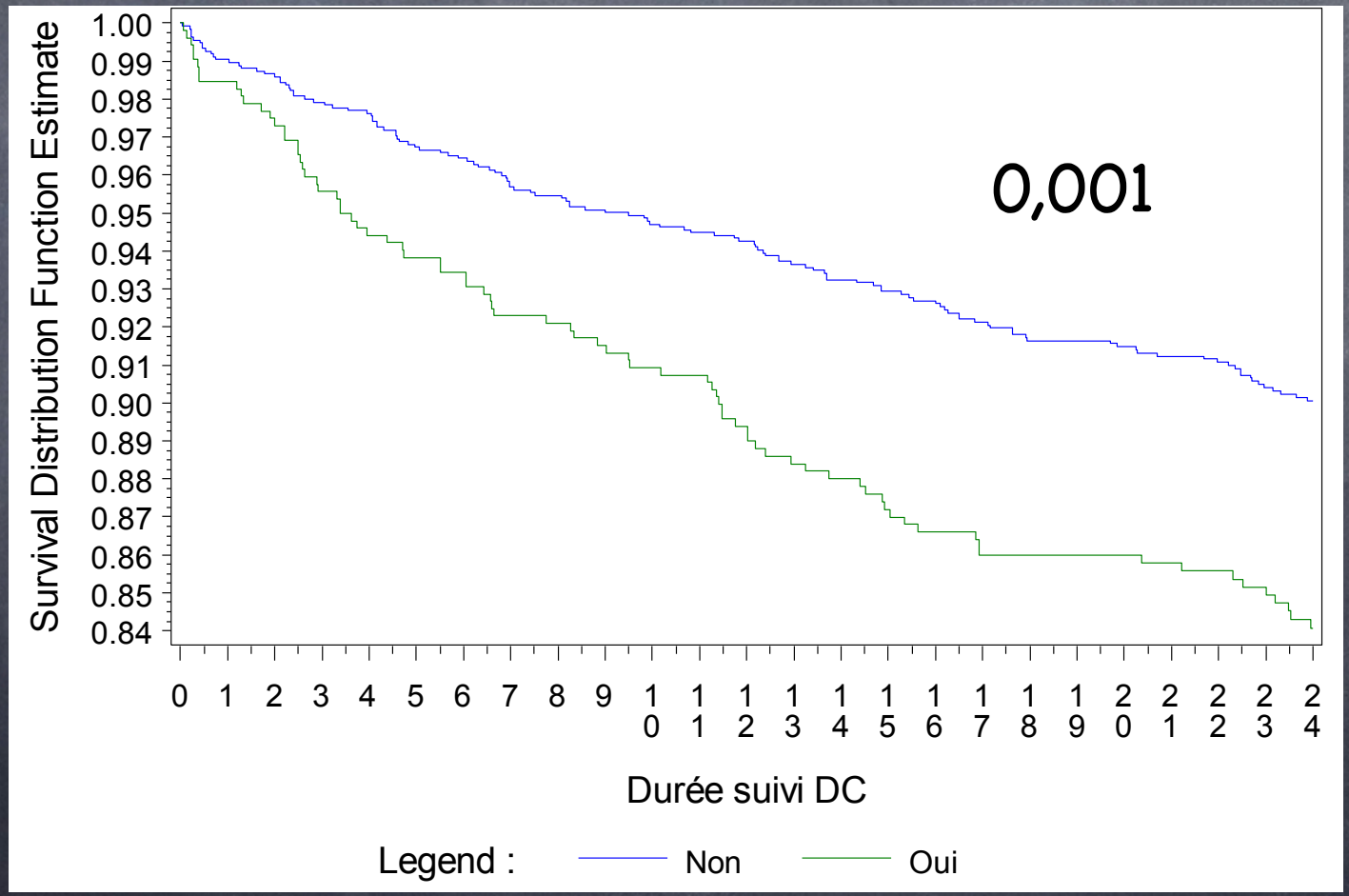
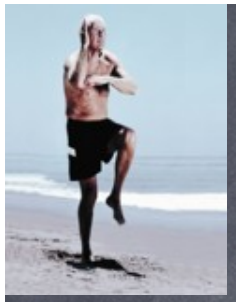


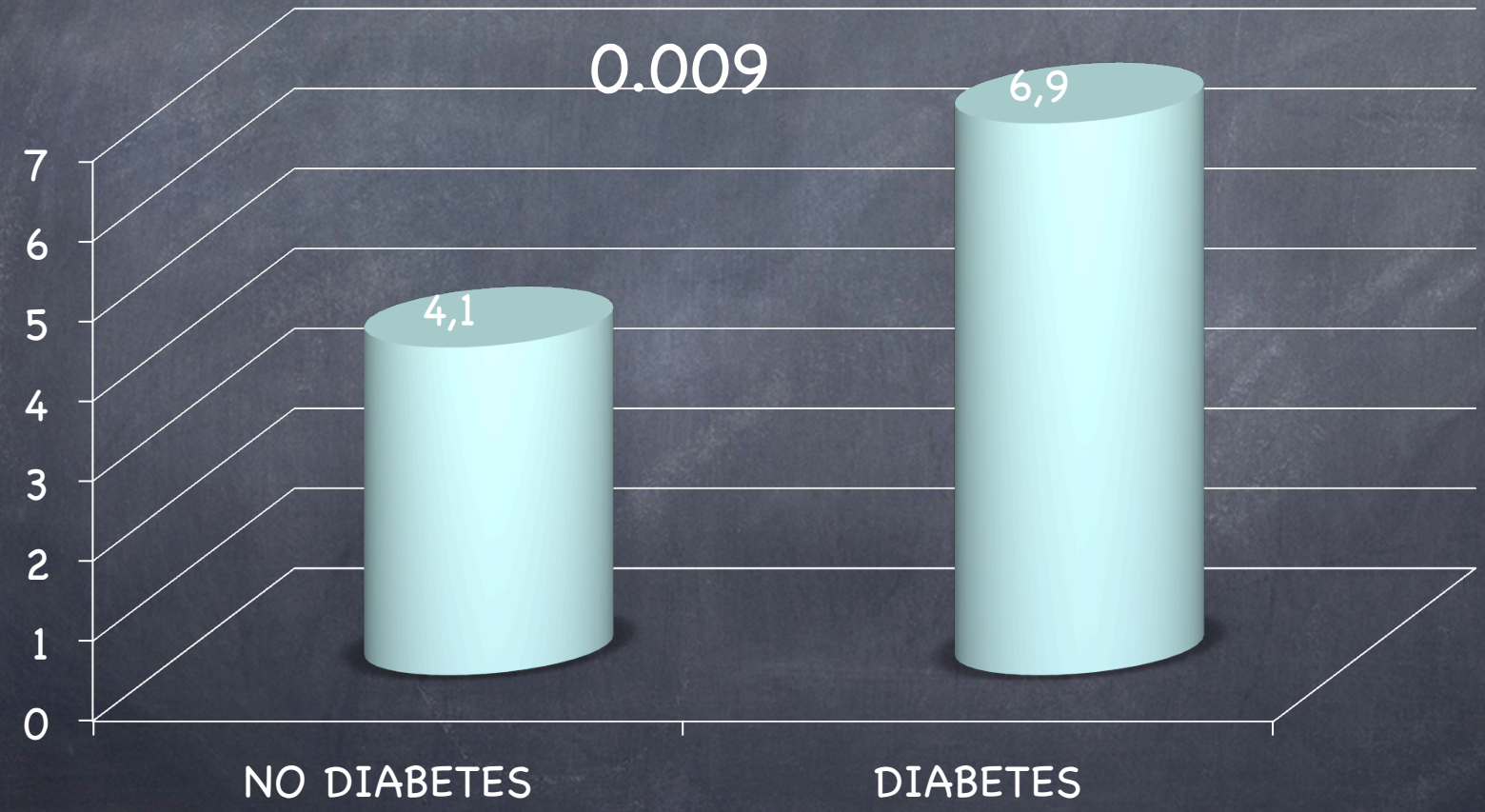


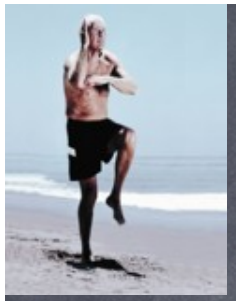
DECES CLASSE D'AGE/ DIABETE 2 ANS



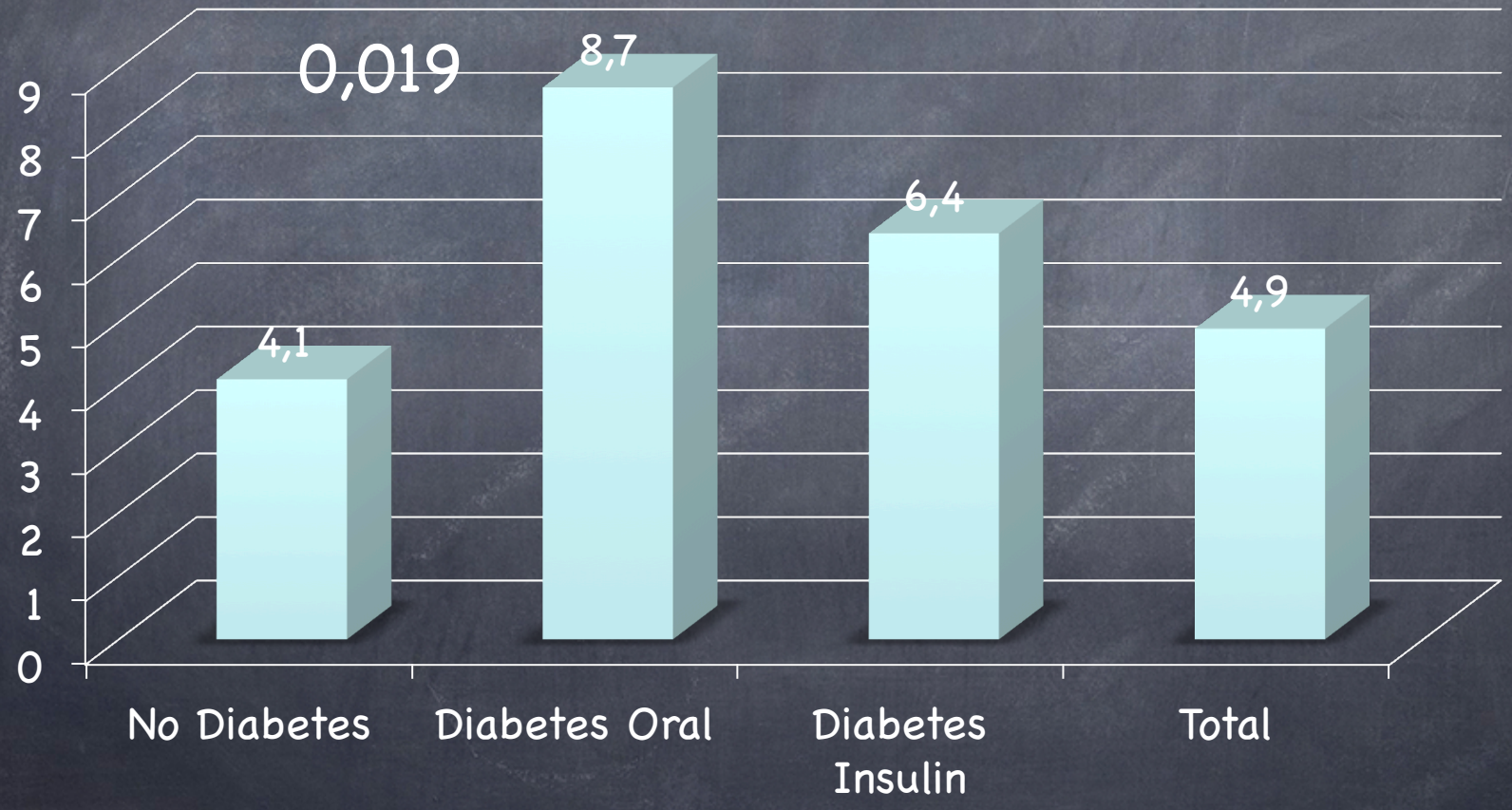


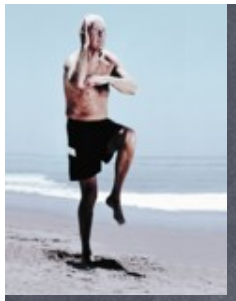
THROMBOSE DE STENT/ DIABETES



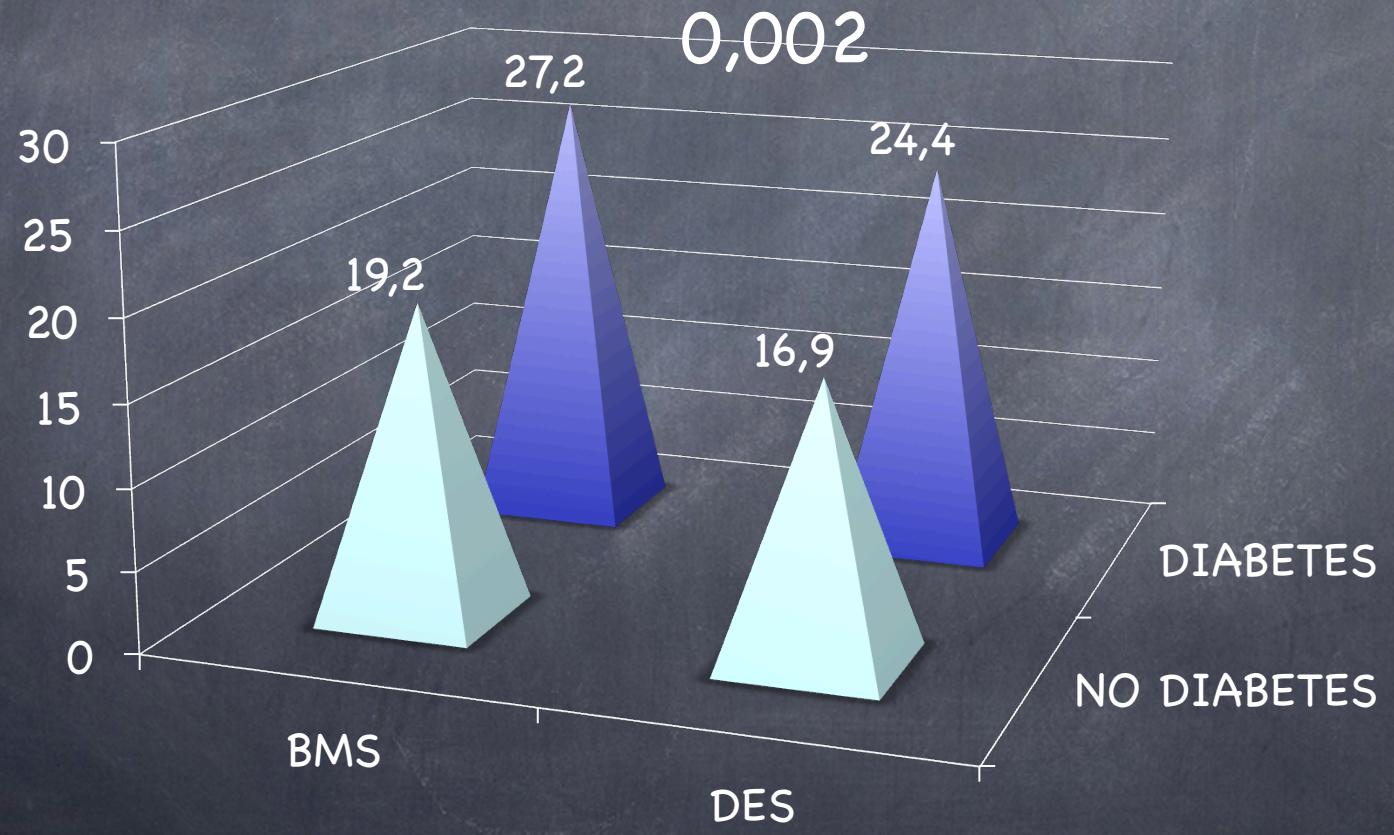


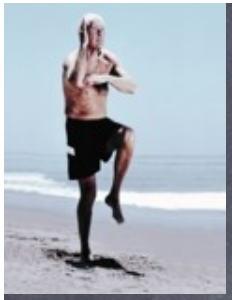
THROMBOSE DE STENT/TYPE DE DIABETE



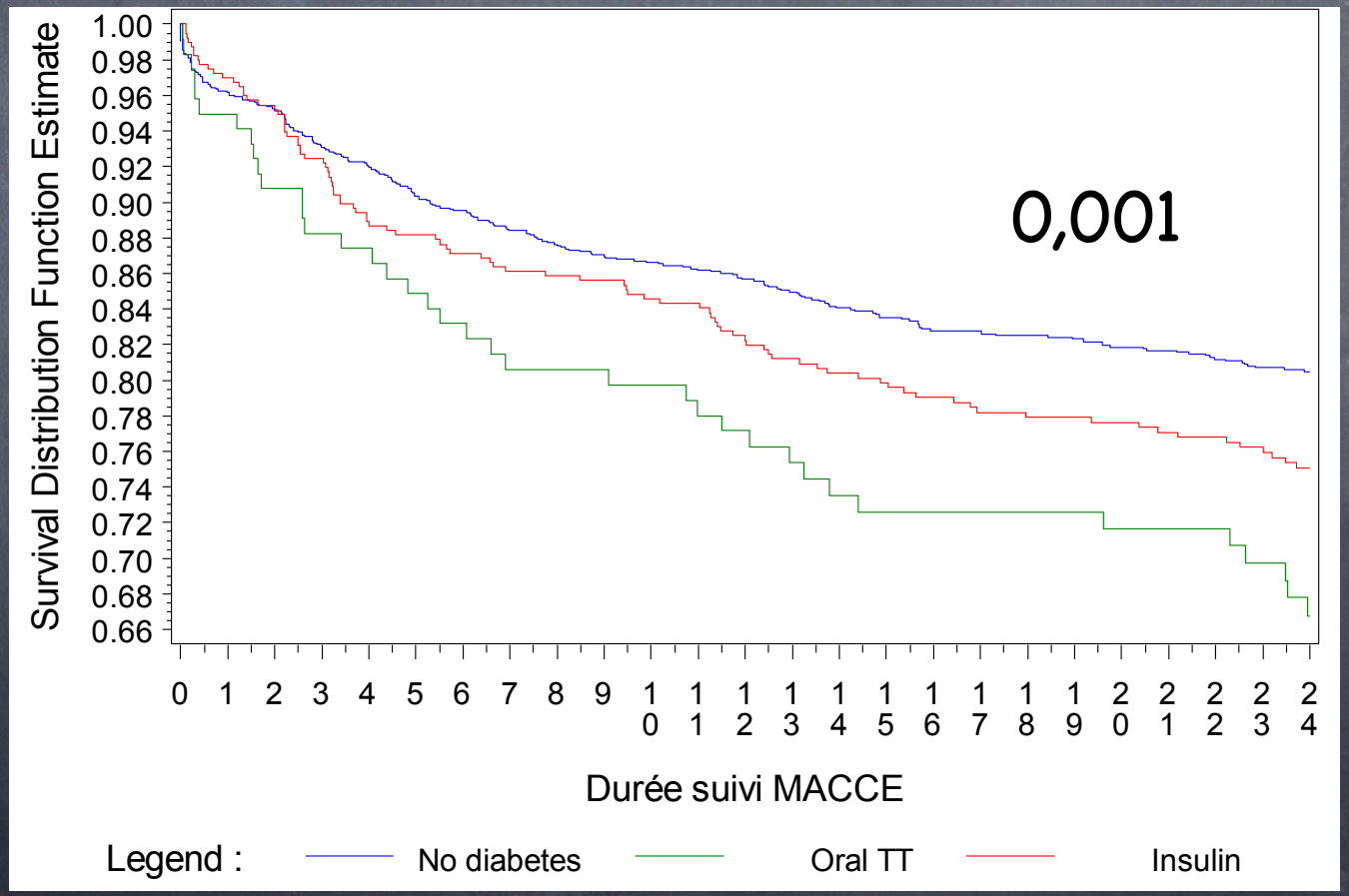


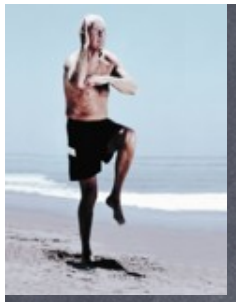
MACCE/DIABETE/STENT



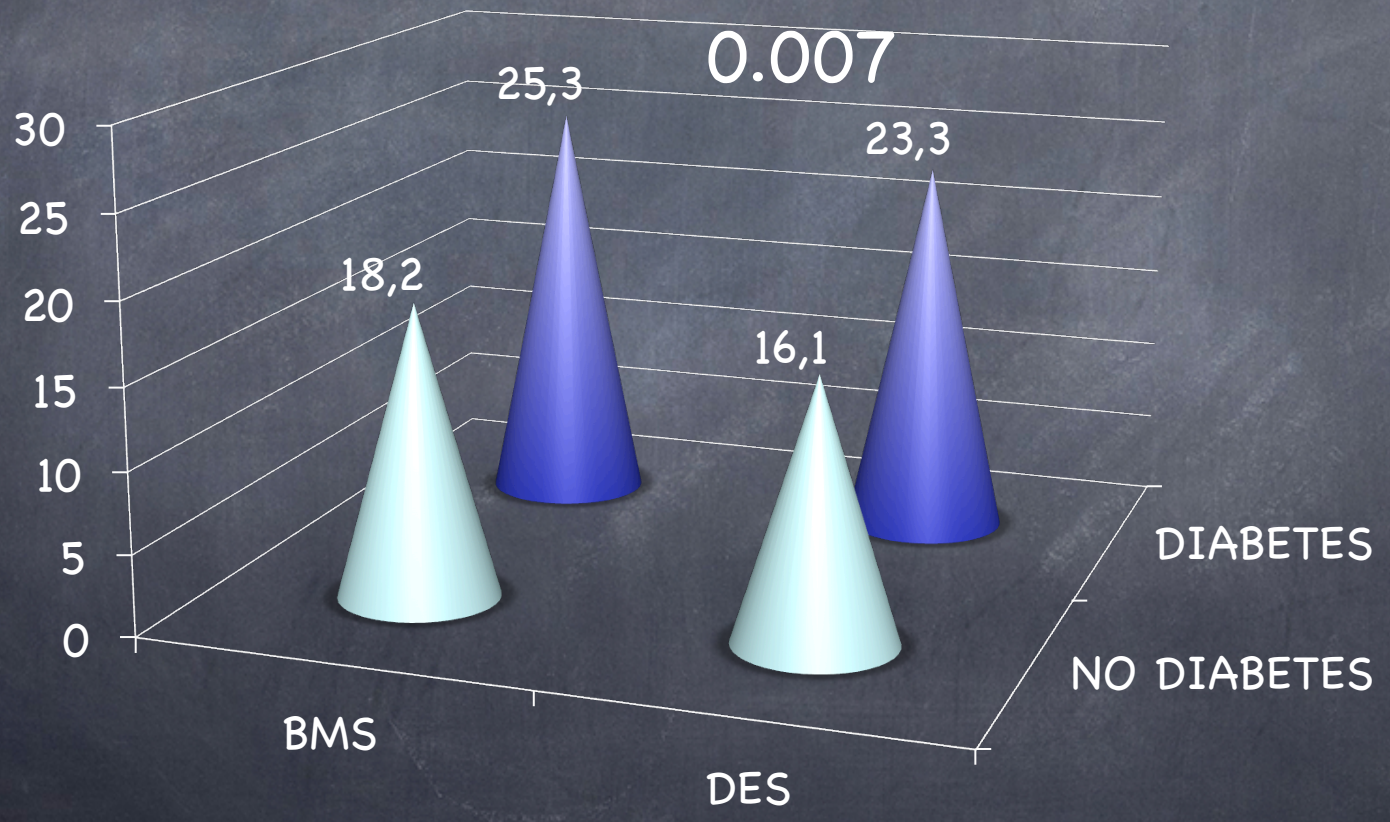


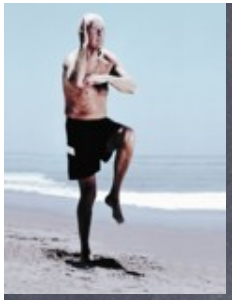
MACCE 2 ANS TYPE DIABETE



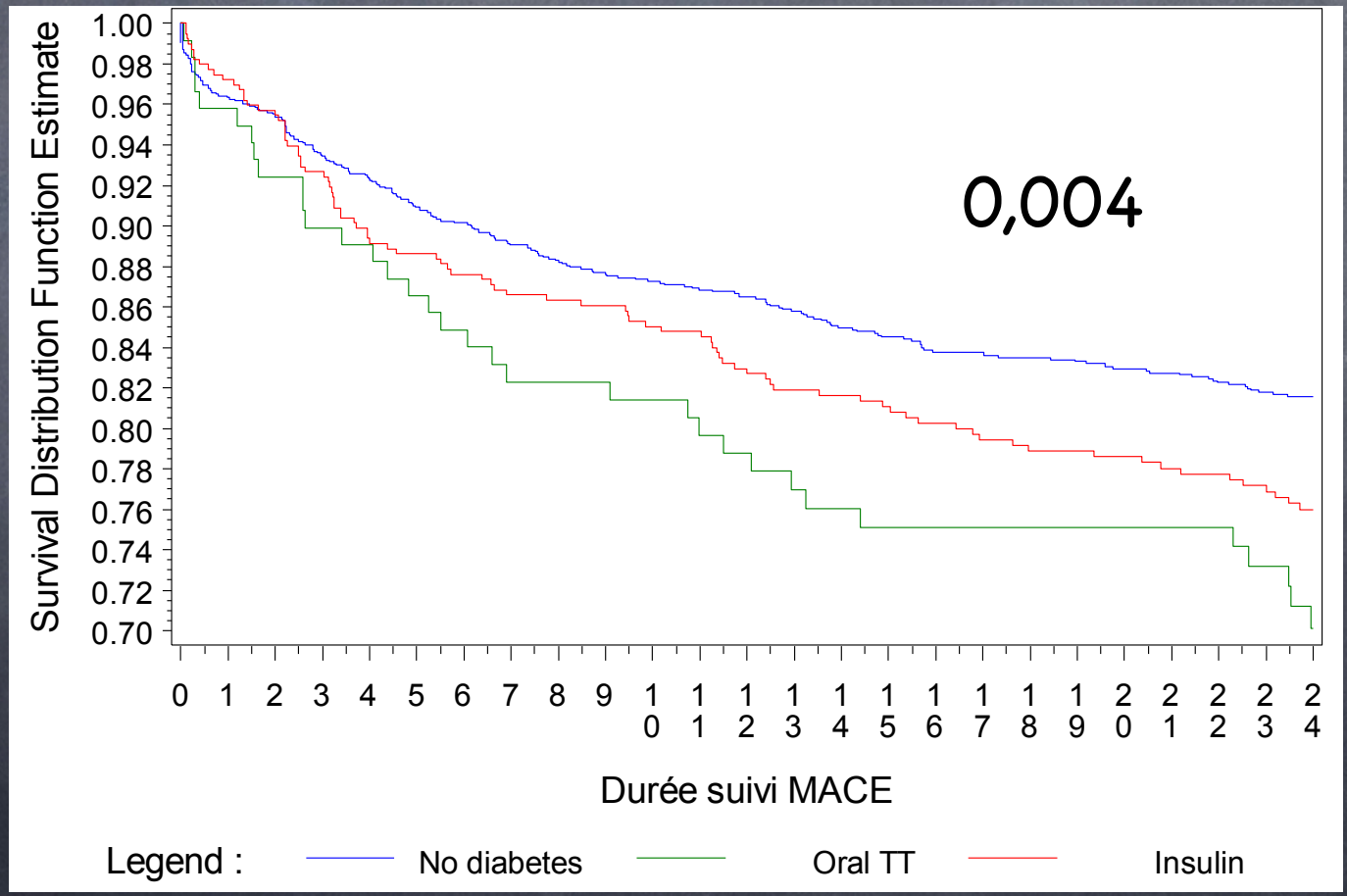


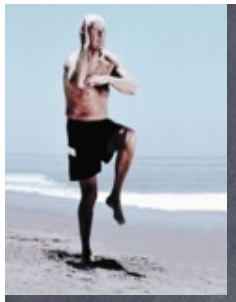
MACE/DIABETES/STENT





MACE 2 ANS TYPE DIABETE/ NO DIABETE/ TYPE DIABETE





EVNTS MAJEURS/DIABETE/ STENT

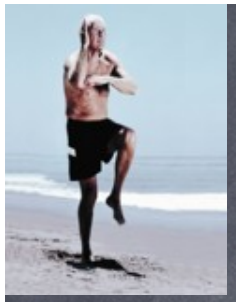
<.001

50
40
30
20
10
0

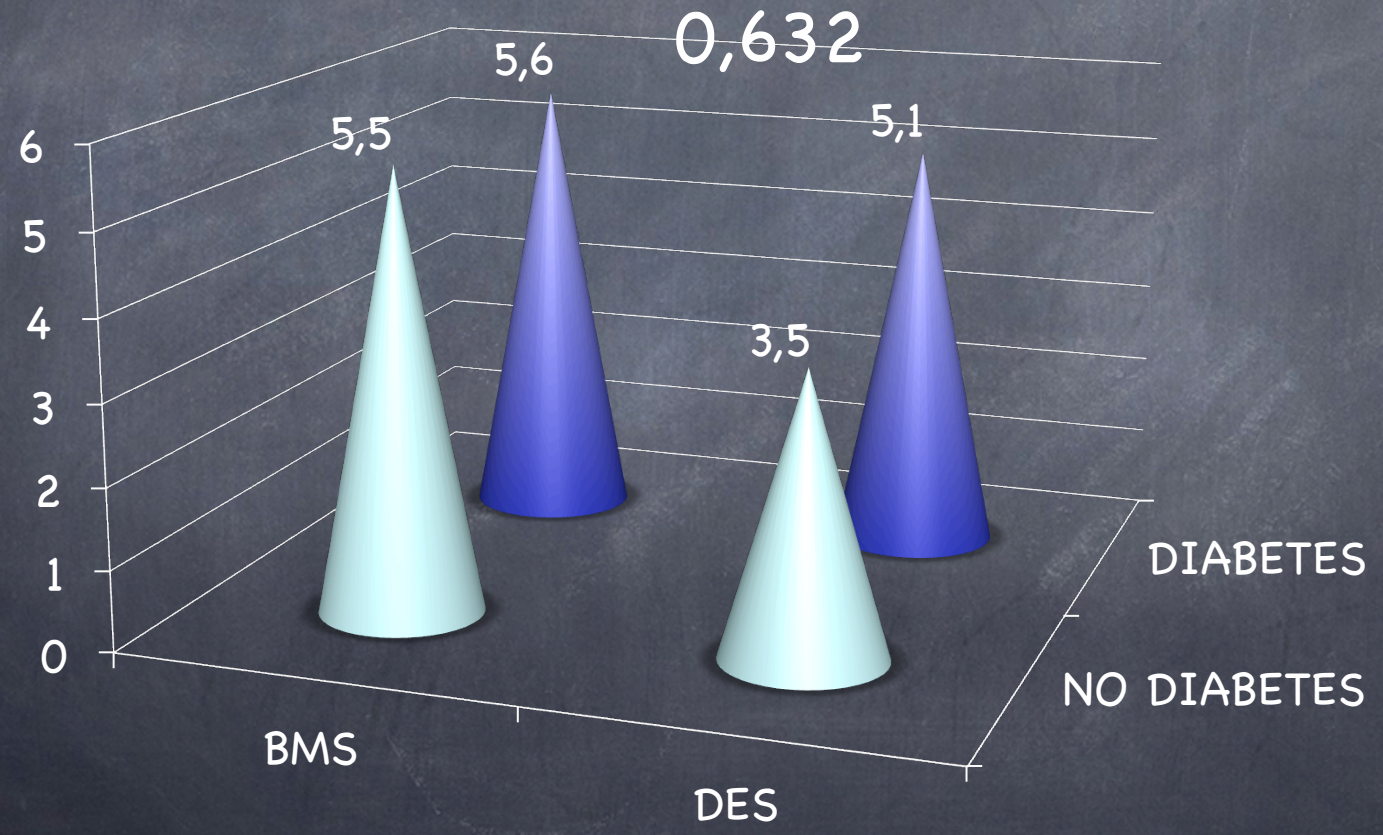
32,9
34,3
35,1
39,8
41,5
40

<80
80-85
>85

DES
BMS



REVASC/DIABETE/STENT



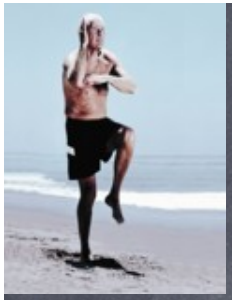
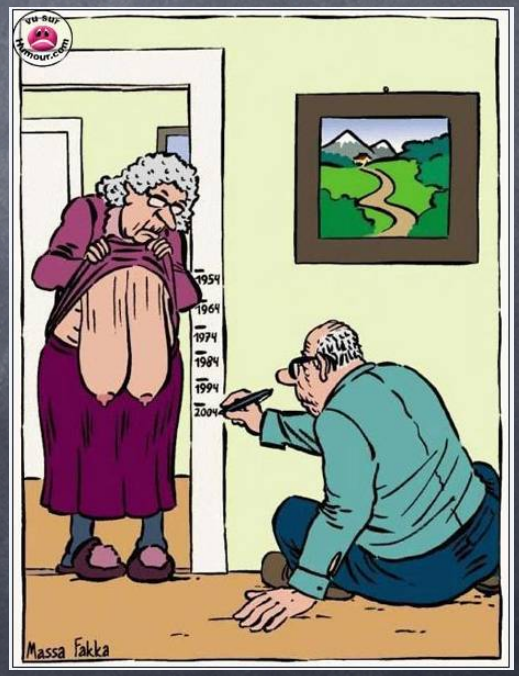


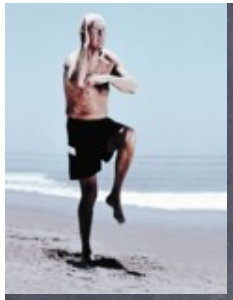
Table 3. Kaplan–Meier Estimates of Major Adverse Cardiovascular and Cerebrovascular Events at 30 Days and 12 Months after the Procedure.

Event	30 Days after Procedure			12 Months after Procedure		
	PCI	CABG	P Value	PCI	CABG	P Value
	number (percent)			*number (percent)*		
Major adverse cardiovascular and cerebrovascular events	45 (4.8)	47 (5.2)	0.68	157 (16.8)	106 (11.8)	0.004
Death	8 (0.8)	15 (1.7)	0.12	32 (3.4)	38 (4.2)	0.35
Myocardial infarction	17 (1.8)	15 (1.7)	0.82	54 (5.8)	30 (3.4)	0.02
Stroke	3 (0.3)	16 (1.8)	0.002	8 (0.9)	17 (1.9)	0.06
Repeat revascularization	31 (3.3)	10 (1.1)	0.002	117 (12.6)	42 (4.8)	<0.001

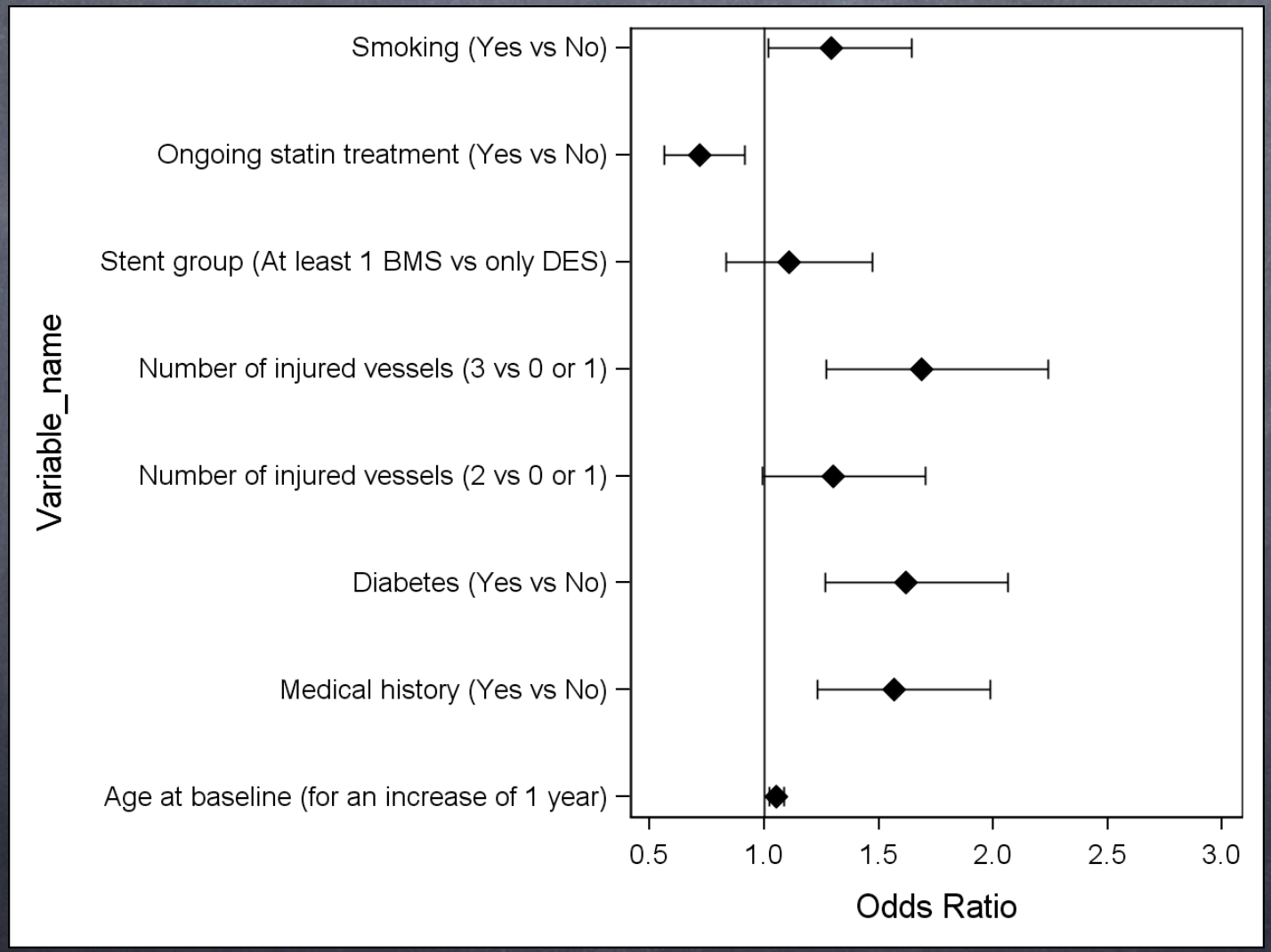
Outcome	2 Years after Randomization	
	PCI	CABG
	number	
Primary composite†	121 (13.0)	108 (11.9)
Death from any cause	62 (6.7)	57 (6.3)
Myocardial infarction	62 (6.7)	42 (4.7)
Stroke	14 (1.5)	24 (2.7)
Cardiovascular death	9 (0.9)	12 (1.3)



Freedom Study, N Engl J Med 2012;367:2375-84.

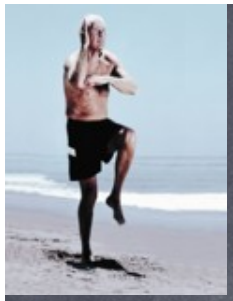


Paramètres pronostiques survenue d'un MACCE à 2 ans



Conclusions

- Tous les patients âgés sont il égaux ?
  - Il semble exister un seuil à 85 ans … peut être la vraie définition du sujet Agé
- L'angioplastie est elle une alternative thérapeutique ?
  - Oui, même si résultats < sujets plus jeunes
  - Facteurs pronostiques idem sujets plus jeunes
- Stent actif ou BMS ?
  - Les 2 peuvent être utilisés sauf peut être dans la population la plus âgée qui semble plus sujette aux thromboses




DERNIER DUEL
LE PREMIER QUI CRÈVE A GAGNÉ
KOF KOOOF KHREUUHH
Flock-07