

Clinical Ethical Dilemmas for Vascular Surgeons (The VASCUETHICS Study): Are Self-interest Attitudes Related to Professional Seniority?

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Objective. To evaluate the association between professional seniority and self-interest (PSI) attitudes in the resolution of vascular ethical dilemmas (VED).

Design. Cross-sectional.

Subjects. Vascular surgeons (residents included) from the 28 vascular teaching departments of Spain.

Measurements. Multidisciplinary team-designed questionnaire of 5 VED. Each VED had 3 different answers (attitudes): 2 favouring legitimate ethical attitudes (LEA) and 1 favouring PSI. The questionnaire was self-administered and all participants stated their degree of agreement with each answer on a continuous Likert scale. PSI was evaluated by: (1) adding the magnitudes of the 5 answers favouring PSI (absPSI); and (2) by comparing in each case the magnitude of the PSI answer with that of the 2 LEA (relPSI).

Statistics. Linear regression adjusted by confounding factors.

Results. Two hundred and fifty-three vascular surgeons from the 26 participating teaching vascular departments of public hospitals completed the questionnaire (87.5% surgeons/department). Surgeon characteristics were: (1) median age 37 years; (2) 187 (74%) male; (3) 59 (23%) brought up with a health professional relative; (4) 94 (38%) had additional private practice; (5) 133 (65%) professed religious beliefs; and (6) 1–10 years of experience in 116 (47%), 11–20 years in 58 (24%), 21–30 years in 57 (23%), and > 30 years in 15 (6%). The multivariate analysis disclosed that for every 10-years rise in professional seniority there was a 3.2% increase in absPSI ($p = 0.007$, adjusted by variables 3 and 4), and a 3.4% increase in relPSI ($p = 0.002$, adjusted by variable 5).

Conclusions. Professional seniority is associated with a slight increase in pro-PSI attitudes in cases of vascular ethical dilemma. Both vascular surgeons and health institutions should promote the reversal of this worrying tendency.

Key Words: Bioethics; Medical ethics; Self-interest; Professionalism; Vascular surgery; Surgeon; Ethical dilemma.

Introduction

The majority of vascular surgeons, with little or no education in bioethics, face many ethical problems in daily practice. Such problems are frequently dealt with by means of practical reasoning, based on experience, education and beliefs, the opinion of colleagues, law, patient preferences and other factors. However, this practical method of ethical reasoning may prove insufficient when conflict arises among the four main principles of medical ethics:¹ beneficence (the duty to be of benefit to the patient), non-maleficence (the duty to not intentionally cause needless harm to the patient), respect for autonomy (the duty to leave the

patient to decide intentionally and with understanding), and justice (the duty to provide fair distribution of goods in society). These ethical dilemmas often result in difficult solutions and personal involvement of the surgeon.

Medicine is based on a morally-demanding fiduciary duty of the physician to protect and promote the interests of his patients. This primary commitment holds the surgeon's self-interest (technical, scientific, economic) in check and renders it a systematically secondary consideration.² While it could be hypothesized that surgeon self-interest attitudes may decrease with increasing seniority as professional maturity develops, the forces of accumulated workload and stress, competition, commercialisation, government regulations and public and media hostility may favour the professional's self-interest (PSI)

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attitudes and some relaxation in their primary commitment to the welfare of patients.

The VASCUETHICS Study is a questionnaire survey on vascular surgeons from Spanish vascular teaching departments designed to evaluate moral attitudes in the resolution of vascular ethical dilemmas (VED). The purpose of the present analysis was to evaluate the association between professional seniority and PSI attitudes in the resolution of VED.

Participants and Methods

Development of the VASCUETHICS Questionnaire

A self-administered questionnaire, entitled 'VASCUETHICS', was designed specifically for this study (Appendix A). It was developed and revised on the basis of multiple discussions among three vascular surgeons, one bioethicist and two professors of philosophy. The final survey consisted of five clinical ethical dilemmas and 16 items covering personal and professional variables.

All clinical scenarios were adapted from real cases to place a problem, which they may have experienced previously, before the participating surgeons. These problems raised possible conflicts among the four main bioethical principles (beneficence, non-maleficence, respect for autonomy and justice). Principles of beneficence and justice conflicted in case 1 in which the surgeon had to decide where a complex patient should undergo surgery. Case 2 raised the problem of disclosing bad news (respect for autonomy) with no apparent clinical benefit (non-maleficence). In cases 3 and 5, the ethical concern emerged from a therapeutic action close to futility (absence of beneficence) conflicting with the principles of justice and respect for autonomy. Finally, case 4 showed a patient's refusal to be treated in a life-threatening condition, i.e. a conflict between beneficence and respect for autonomy.

Each clinical scenario had 3 attitude responses: two promoted each of these ethical principles in conflict and the third favoured the surgeon's self-interest (convenience, search for technical expertise). Participating surgeons were asked to evaluate their degree of agreement with all 15 attitude responses by placing a pen mark on a 50-millimeter continuous Likert scale without intervals between two statements: 'absolutely agree' and 'absolutely disagree'. The attitude responses of each case were randomly allocated.

All attitude responses promoting any of the ethical principles in conflict were considered as legitimate

ethical attitudes (LEA), since ethical dilemmas, by definition, imply the existence of moral reasons for favouring either of two courses of action. Conversely, the self-interest attitude response was not considered a LEA since deontological practice of medicine holds the surgeon's self-interest in check and systematically renders it a secondary consideration.

Multiplechoice formats were used for the remaining items. Some questions inquired about the professional profile of the participating surgeon (years of practice, on-call service, career status, additional private practice), whereas others inquired about his personal profile (age, sex, children or elderly at home, health professional parents, religious beliefs, political orientation, previous education in bioethics).

Sample and procedures

The sample was vascular surgeons from teaching departments belonging to hospitals of the Spanish public health services. In general terms, physician remuneration in public hospitals is not influenced significantly by their activity. They receive a salary, which rises discretely as seniority increases. With the rare exception of participation in pharmaceutical company-sponsored clinical trials, financial considerations do not play a significant role in the daily care decisions for individual patients.

The questionnaire was distributed to all vascular surgeons (residents included) members of the 28 vascular teaching departments of Spain. A vascular surgeon from each department was chosen as a member of the study group (Appendix B). Each questionnaire package included a cover letter explaining the general aims of the survey, i.e. to evaluate attitudes of the surgeon when facing ethical dilemmas. Neither the philosophical background of each attitude response nor the concrete objectives of the present analysis were revealed to the participating surgeons to ensure non-pre-conditioned responses. Participation was voluntary and confidential. All response forms were anonymous and destroyed once the data had been entered into the database.

When completed questionnaires were received, a comprehensive letter was sent to the representative of the VASCUETHICS Group of each vascular teaching department explaining the philosophical foundations of the questionnaire design and the answers. Special care was taken to promote an open discussion within each vascular department to obtain a feedback on their agreement with the rationale of each case and the responses. No major or systematic difficulties were

observed, thus reinforcing the validity of the questionnaire.

Members of the study group were asked to provide anonymous general data from non-responder surgeons. However, these data were finally destroyed and not entered into the database since there is a legitimate attitude for confidentiality as to whether a non-participating surgeon is indeed a non-participant.

Statistical analysis

The results of the questionnaires were entered into a SPSS database (SPSS 10.0 for Windows). The millimetres of agreement on the Likert scale with each attitude response were entered into separate fields. PSI was quantitatively evaluated by two methods: (1) *absolute PSI* (absPSI) obtained by adding the millimetres magnitude of the five self-interest attitude responses (case 1: a; case 2: c; case 3: b; case 4: b; case 5: b), and (2) *relative PSI* (relPSI) was evaluated by comparing the magnitude of the PSI answer with that of the two LEA of each case. For each clinical case, a score of 5 points was assigned if the self-interest attitude was the highest rated answer. Scores of 4 or 3 points were assigned when the self-interest attitude was the highest rated answer together with one or two LEA responses, respectively. Scores of 2 or 1 points were assigned when the self-interest attitude was chosen in second place, either alone or sharing this position with an LEA response, respectively. Finally, a score of 0 points was given when the self-interest attitude response was chosen behind both LEA, i.e. in third place. Only differences over 2 mm among responses were considered to be significant. RelPSI magnitude was finally obtained by adding the previous scores of the five cases (0–25 points).

Surgeon characteristics were described using measures of central tendency (median) for continuous variables and frequency distributions for categorical variables.

The bivariate association of number of years in practice (seniority) with self-interest attitudes (absPSI and relPSI) was examined through bivariate correlations (Spearman's rho, two-tailed). The association of seniority with absPSI and relPSI, independent of potential confounders, was examined through multiple linear regression analyses. Final multivariate models included those independent variables with confounding effect on beta coefficient: (1) seniority, health professional relatives and additional private practice for absPSI model; and (2) seniority and religious believes for relPSI model. The strength of each model, (the percentage of self-interest explained

by the studied variables) was assessed by examining *r*-square values.

Results

Two hundred and fifty-three vascular surgeons from 26 vascular teaching departments of public hospitals completed the questionnaire (87.5% surgeons/department). Their personal and professional characteristics are shown in Table 1. Of the surgeons who responded, 187 (74%) were men. Median age was 37 years, with a range of 24 to 67 years. Ninety-four (38%) had additional private practice. Two hundred and eighteen (86%) performed vascular on-call services at their hospitals. Thirty-eight per cent were residents, 48% registrars and 14% unit or department heads. Median years in practice (seniority) was 12, with a range of 1–45 (1–10 years in 47%, 11–20 years in 24%, 21–30 years in 23% and >30 years in 6%).

The PSI attitude was the highest rated answer in a minority of cases while a LEA received the maximum score in the majority of clinical cases (Fig. 1). Case 2 received the lowest proportion of PSI attitudes rated in first place (5%), whereas cases 1 and 4 received the highest proportion of PSI attitudes rated in first place (19 and 18%, respectively). The majority of surgeons (86%) rated no case, or just one clinical case, with PSI attitude in first place (Fig. 2).

Median absPSI was 98 mm, with a range of 1–250 (minimum = 0, maximum = 250), while median relPSI was 8 points, with a range of 0–21 (minimum = 0, maximum = 25). Mean absPSI and

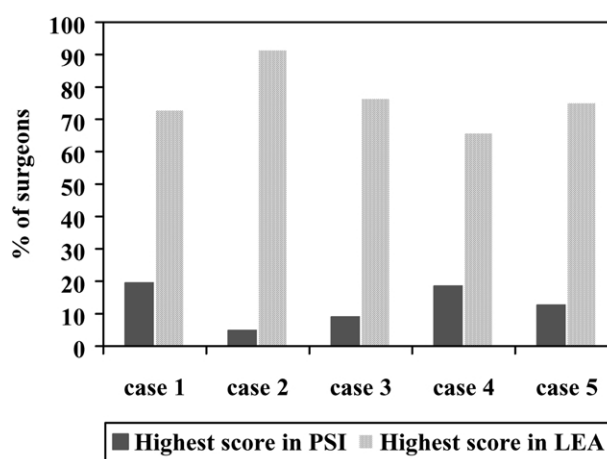


Fig. 1. Percentage of vascular surgeons according to the highest rated answer for each clinical case. *Highest score in PSI* (professional's self-interest): percentage of surgeons who rated the PSI attitude in first place. *Highest score in LEA*: percentage of surgeons who rated an ELA attitude in first place.

Table 1. Personal and professional characteristics of participating vascular surgeons

	Cases (%)	Missing values (%)
Age (years)	37 (24–67)*	4 (1.6)
Sex		
Males	187 (74)	–
Females	66 (26)	
Children	128 (51)	2 (0.8)
Elderly at home	30 (12)	3 (1.2)
Brought up with health professional relatives	59 (23)	1 (0.4)
Religious beliefs	133 (66)	50 (19.8)
Political orientation	18 (0–50)†	43 (16.9)
Bioethical education	44 (18)	6 (2.4)
Years of practice	12 (1–45)	9 (3.6)
Career status		5 (2)
Resident	94 (38)	
Registrar	119 (48)	
Head	35 (14)	
On-call service	218 (87)	1 (0.4)
Additional private practice	94 (38)	6 (2.4)
Absolute professional self-interest (absPSI)	98 (0–250)	8 (3.1)
Relative professional self-interest (relPSI)	8 (0–21)	10 (4)

See text for absPSI and relPSI rating methods.

*Median (maximum–minimum).

†Millimetres on a continuous 50 mm Likert scale (political orientation: 0 = socialist; 50 = conservative).

relPSI values related to seniority quintiles are shown in Figs. 3 and 4. Mean PSI values, both absolute and relative, increased with seniority and both absPSI and relPSI showed significant bivariate correlations with seniority (Spearman's $\rho = 0.261$ for absPSI, $p < 0.001$; and 0.265 for relPSI, $p < 0.001$).

Higher absPSI rates also were associated significantly with age ($p < 0.001$), surgeons with children ($p = 0.02$), higher professional rank ($p = 0.02$), and additional private practice ($p < 0.001$). AbsPSI rates showed a marginal association with male sex and not coming from a health professional family (Table 2).

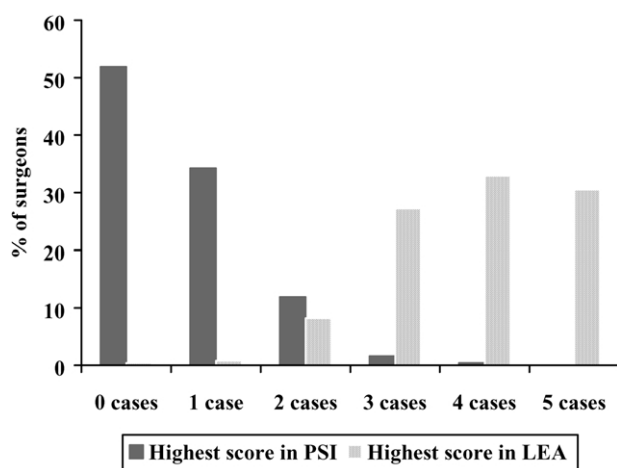


Fig. 2. Percentage of surgeons according to the number of cases in which the highest score was assigned to a self-interest (PSI) attitude or to a LEA. *Highest score in PSI*: percentage of surgeons who assigned the highest score to the PSI attitude. *Highest score in LEA*: percentage of surgeons who assigned the highest score to a LEA attitude.

Higher relPSI scores also were associated significantly with age ($p < 0.001$), surgeons with children ($p = 0.006$), additional private practice ($p = 0.01$) and higher professional degrees ($p = 0.002$): there was a marginal association with absence of religious beliefs ($p = 0.08$).

Multivariate analysis (Table 3) showed the number of years in practice to be significantly associated with both absPSI ($p = 0.007$) and relPSI ($p = 0.002$). In the absPSI multivariate model, additional private practice and not coming from a health professional family were

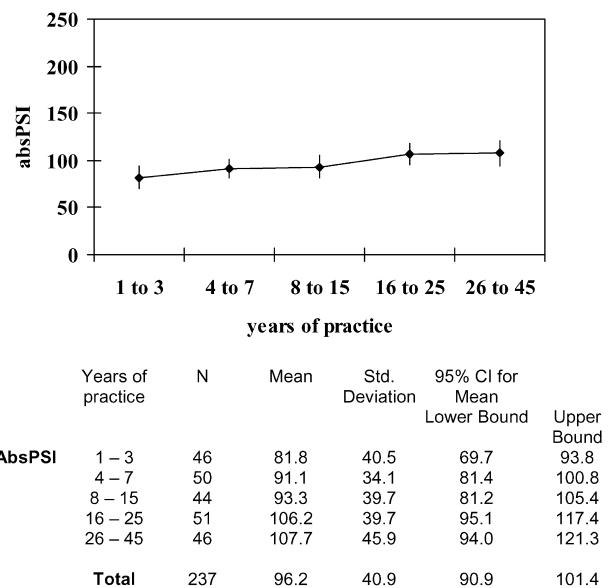
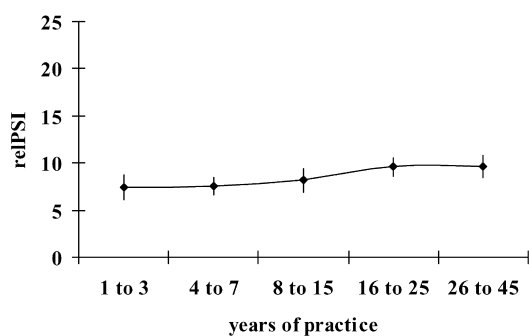


Fig. 3. Mean absolute professional self-interest attitude (absPSI) values related to years of practice quintiles.



Years of practice	N	Mean	Std. Deviation	95% CI for Mean	Upper Bound
RelPSI 1 – 3	46	7.4	4.4	6.1	8.7
4 – 7	50	7.6	3.2	6.7	8.5
8 – 15	44	8.2	4.2	6.9	9.4
16 – 25	49	9.6	3.6	8.6	10.6
26 – 45	46	9.6	3.9	8.5	10.8
Total	235	8.5	3.9	7.9	9.0

Fig. 4. Mean relative professional self-interest attitude (relPSI) values related to years of practice quintiles.

marginally associated with higher absPSI scores. In the relPSI model, religious beliefs were marginally associated with lower relPSI scores. These multivariate analyses disclosed that every 10-year rise in professional seniority accounted for a 3.2% increase in absPSI and a 3.4% increase in relPSI. The absPSI model explained 10% of absPSI and the relPSI model 6.2% of relPSI.

Discussion

The present study suggests that Spanish vascular surgeons, from teaching departments, infrequently rate self-interest attitudes in first place when facing clinical ethical dilemmas. This encouraging result may emerge from the public nature of our National Health System. Therefore, it is not surprising that additional private practice has been associated with increased absPSI levels. Some other explanations, however, may also have contributed to this finding. First, Spain has a long tradition of Catholicism, which professes charity as one of his nuclear virtues. Second, there is a pro-solidarity movement in Western developed countries which may favour ethical attitudes toward vulnerable populations, i.e. the elderly, children, the homeless and ethnic minorities. Finally, registrars and principal surgeons from teaching departments usually practise under the critical and observant eye of their residents, thus promoting more auto-critical thinking as to the nature and scope of their actions.

The second important result of the present study is that PSI attitudes seem to slightly increase with seniority. This unwelcome result may have emerges from the pressures of our National Health System. Remuneration and type of activity in public hospitals do not significantly change over the years, thus promoting weariness in many senior registrars who sometimes see private practice as the only way to

Table 2. Association between surgeon's personal and professional characteristics with mean absolute (absPSI) and relative (relPSI) professional self-interest attitude values

		n	AbsPSI	p-value	RelPSI	p-value
Age			Positive correlation	0.001*	Positive correlation	<0.001*
Sex	M	185	98		8.6	
	F	65	90	0.16†	7.9	0.37†
Brought up with health professional relatives	Yes	57	88		8.0	
	No	187	98	0.12†	8.6	0.31†
Children	Yes	122	101		9.1	
	No	121	90	0.02†	7.7	0.006†
Elderly at home	Yes	27	96		8.7	
	No	215	96	0.92†	8.4	0.69†
Religious beliefs	Yes	126	92		7.8	
	No	70	98	0.25†	8.8	0.08†
Bioethical education	Yes	43	87		7.9	
	No	197	96	0.29†	8.4	0.54†
Political orientation			No correlation	0.51*	No correlation	0.71*
Years of practice			Positive correlation	<0.001*	Positive correlation	<0.001*
On-call service	Yes	212	94		8.3	
	No	32	101	0.29†	9.2	0.44†
Additional private practice	Yes	89	107		9.2	
	No	150	88	<0.001†	7.9	0.04†
Career status	Resident	96	88		7.6	
	Registrar	116	97		8.6	
	Head	32	117	0.02‡	10.4	0.002‡

Mean absPSI values are millimetres on a continuous Likert scale while mean relPSI values are points of a pre-defined score (see text).

*Spearman's rho bivariate correlation test.

†Mann-Whitney U test.

‡One way ANOVA.

Table 3. Multivariate analysis of the relationship between seniority and professional self-interest attitudes

	Non-standardised coefficients		p-value
	Beta	Error	
AbsPSI model			
Years of practice (per year)	0.795*	0.29	0.007
Additional private practice	11.76	6.32	0.064
Brought up with a health professional relative	-11.47	6.10	0.061
RelPSI model			
Years of practice (per year)	0.085†	0.02	0.002
Religious faith	-0.95	0.58	0.10

*Since beta/1 year of practice = 0.795, 10 years of seniority account for a 7.95 mm increase on the 0–250 mm scale. $100 \times 7.95/250 = 3.2\%$ increase in absPSI for every 10-year rise in professional seniority.

†Since beta/1 year of practice = 0.085, 10 years of seniority account for an 0.85 point increase on the 0–25 point scale. $100 \times 0.85/25 = 3.4\%$ increase in relPSI for every 10-year rise in professional seniority.

improve their salary and feel proud of themselves. Again, other explanations may also have contributed to this finding. First, young surgeons are probably more idealistic about the limits of health care while senior surgeons are probably more realistic. To be realistic, however, does not mean to be less ethical, although sometimes PSI attitudes may be proclaimed as realistic ones. Second, some LEA of the VASCUETHICS questionnaire may have been misinterpreted by other team members. Since the approval of colleagues is a basic psychological need of every person, LEA are to be avoided progressively as seniority increases if senior surgeons do not recognise their value. Finally, the progressive decline in the possibility of reaching a high economic status within the medical profession may have contributed to an increasing proportion of vocational physicians and to the *de facto* increased rate of female physicians, who may be more sensitive to ethical concerns.

Limitations of the study

The internationalisation of the present survey and the inclusion of non-teaching departments could have allowed us to improve our understanding of the relative meaning of financial, vanity and convenience grounds in the genesis of PSI attitudes. However, this effort does not seem to be possible, at least with the present questionnaire, since participants' blindness to the philosophical foundations of the cases and answers seems to be an essential feature of the present study's strength; this will be impossible once the present study appears in the public domain.

Another limitation of the present study is its cross-sectional design, which permits an association to be stated without evaluating a cause-effect relationship. Therefore, the present study may suggest, but cannot

prove that PSI attitudes increase with seniority. This limitation could have been overcome by additional surveys with the same questionnaire every 5 years. However, the research team believed that the questionnaire's philosophical foundation disclosure among participants (once the answers were received) was ethically important for giving opportunities for an open discussion. Since blinding was eliminated, the study cannot be reused among this cohort at a later time.

The reduced explanation power of the multivariate models is another limitation of the present study. While the association between seniority and PSI cannot be doubted, it is also true that seniority together with the other marginally independent variables only explained a small 'percentage' of surgeons' PSI attitudes. This limitation could have been partially overcome by including psychological tests in the questionnaire. This measure, however, would have lengthened the response time and probably lowered the participation rates.

Finally, there is an unresolvable limitation of the present study. The VASCUETHICS Study measures attitudes but not real choices. This consideration forces us to make use of the *phronesis* virtue (prudence, practical wisdom) in the interpretation of the results. Attitudes do not always reflect real choices although it may seem reasonable to expect more PSI rather than LEA in the latter. It may seem dissatisfactory, but simply our human condition. As one would say: 'The road to Hell is paved with good intentions'.

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Appendix 1. Surgeon Attitudes in Vascular Ethical Dilemmas: The VASCUETHICS Questionnaire

1. Vascular surgery department of a reference high level public hospital: you diagnose a complex 12 cm thoracoabdominal aortic aneurysm below the left subclavian artery in a 55-year-old man. The characteristics of this aortic aneurysm make you believe the patient would have a significantly better chance of survival if operated on in Houston. The patient cannot afford this operation in the United States. What would be your attitude?

(a) I would favour this operation in our hospital. We would make good use of this situation to update our knowledge and resources to take care of the patient. Our hospital is a reference high level institution and we have to acquire experience in this field as well.

Absolutely disagree ●————● Absolutely agree

(b) The patient should be referred to the institution of our country with the best experience in such cases. The cost of offering better survival chances to this patient (referral to Houston) may involve shortages for other patients in our resource-limited health system.

Absolutely disagree ●————● Absolutely agree

(c) The patient should be operated on in a foreign institution with great experience in such cases. Our National Health System should cover this referral and one surgeon of our department, if possible, should observe the procedure. I would personally involve myself in the burocratic steps needed to pursue this referral.

Absolutely disagree ●————● Absolutely agree

2. Vascular surgery office of a public hospital: a colleague from your department scheduled a carotid duplex scan for a 95-year-old lower limb claudicant man whom you usually take care of. The patient, who has no previous cerebral symptoms, comes to you with the result in a closed envelope. You discover he has 70–99% carotid stenosis and you know perfectly he has no indication for surgery. What would be your attitude?

(a) I think it is indicated to withhold information from the patient when it is not beneficial for his health and may raise some psychological stress. I would disclose the test results to his family but I would try not to disclose them to him.

Absolutely disagree ●————● Absolutely agree

(b) It is a duty to inform the patient. I will search for the best words but I will disclose the test results to him. I would overlook this duty if the patient tells me he does not want to know them, if the patient suffers from depression, or if the family has previously offered me reasonable arguments to withhold the information

Absolutely disagree ●————● Absolutely agree

(c) I think that I would not have scheduled such a diagnostic test for this patient. So I would politely tell my colleague that he should take care of this problem.

Absolutely disagree ●————● Absolutely agree

3. Sixty-eight-year-old man, smoker and paraplegic since a car accident 20 years ago. He does not use his legs at all. He suffers from 3-toe gangrene and rest pain (ankle-to-brachial index = 0.15). Suppose an angiography confirms that there is a chance for surgical revascularisation. What would be your attitude?

(a) I would explain to the patient all possible therapeutic alternatives, even surgical revascularisation, with their risks and benefits. I would try to be as neutral as I could and would accept his choice.

Absolutely disagree ●————● Absolutely agree

(b) I would try to avoid a personal decision regarding this patient. These cases are often conflictive. I would present the case in the clinical session of our department and would strictly abide by the decision (bypass or major amputation).

Absolutely disagree ●————● Absolutely agree

(c) I would try to explain as well as possible (patient and family) that I do not think it is indicated to spend hospital resources for revascularisation of a non-functional limb. I would try to prescribe palliative measures and, if required, major amputation.

Absolutely disagree ●————● Absolutely agree

4. A 70-year-old man, conscious and supposedly competent, is referred to the emergency department on a Saturday at midnight suffering from wet gangrene in his right foot and distal leg. In his left heel he also has a small pressure ulcer. Both lower limbs have neither popliteal nor distal pulses. There are no close relatives and the patient lives in a home. The patient rejects major lower limb amputation being aware of the possible fatal outcome. What would be your attitude?

(a) I would confirm the patient is competent by means of a consultation to the on-call psychiatrist, neurologist or internist. In such a case, I would explain to the patient that his refusal is to be respected but not at the cost of patients that come to the emergency department wishing to be treated. Therefore, I would ask the patient for a voluntary discharge, prescribe him medical treatment, refer him back to his institution, and inform him that he will be very welcome at our hospital if he changes his mind.

Absolutely disagree ●————● Absolutely agree

(b) Workload in the emergency department is quite important. I would respect the patient's decision, whom I see to be competent, without any consultation. I am not the adequate person to make him change his mind. Without more explanations, I would refer him back to his institution, and inform him that he will be very welcome at our hospital if he changes his mind.

Absolutely disagree ●————● Absolutely agree

(c) I would confirm the patient is competent by means of a consultation. However, regardless of its result, I would believe that his vulnerability in such a scenario makes him not completely aware of what he is saying. I would prescribe medical treatment but I would keep the patient in the hospital, in case he changes his mind. From time to time, I would approach him to discuss ongoing treatment

Absolutely disagree ●————● Absolutely agree

5. A 76-year-old man has a 7 cm abdominal aortic aneurysm. The patient was rejected for elective surgery for medical (cardiac) reasons. The patient is referred to the emergency department with his aortic aneurysm ruptured. The patient is conscious and orientated, hypotensive and oliguric. What would be your attitude?

(a) I think that there is no indication for surgery. His survival prospects are very low and surgery supposes suffering and a waste of operating room, blood resources, and so on. I would try to disclose to the patient and his family that surgery is futile and, therefore, inappropriate.

Absolutely disagree ●————● Absolutely agree

(b) I think that there is no indication for surgery. I would explain to the patient's family that we are not going to operate on his ruptured aneurysm, especially once we rejected surgery on an elective basis. I would try to avoid a direct disclosure to the

patient about his immediate prospects and prescribe palliative treatment.

Absolutely disagree ●————● Absolutely agree

(c) I think that the patient's survival chances are very low but it is his right to decide whether to accept or not surgery. I disclose to the patient the different therapeutic options and abide by his final decision.

Absolutely disagree ●————● Absolutely agree

Appendix 2. VASCUETHICS Study Group

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