

APPENDIX III

Results

Part I : General questions

1. Generally spoken, are you in favour or against the creation of an officially recognized new profession dedicated to anesthesia only ?

Question	YES	NO	% YES	%NO	BLANKS	%BL
a. For more limited support, maintaining the one-table-system for the anesthetist	324	394	37.2	45.2	153	17.6
b. For assuring certain medical activities ; a more-table-systems becomes possible	415	380	47.7	43.6	76	8.7
c. There is no need for a new officially recognized profession, the nurses available in the operation suite are appropriate although theoretical and practical courses and adapted professional organisation are needed	343	384	39.4	44.1	144	16.5

Part II : Task profile of the new profession

1. Pre-operative screening :

Would you allow the "possible future" non-physician professional ...

Question	YES	NO	% YES	%NO	BLANKS	%BL
a. To make appointments and to draw up the list of consultations and prepare the administrative paperwork	762	99	87.5	11.4	10	1.1
b. To explain the pre-operative questionnaire and to help the patients with filling out the document	754	107	86.6	12.3	10	1.1
c. Access the written or electronic medical file, necessary for the entry of data on the pre-anesthesia file	567	295	65.1	33.9	9	1
d. Take the patient history	335	522	38.5	59.9	14	1.6
e. To consult data from external sources	546	304	62.7	34.9	21	2.4
f. To perform a standardized clinical examination	147	712	16.9	81.7	12	1.4
g. To prescribe supplementary examinations according to standard guidelines	222	631	25.5	72.5	18	2
h. To propose and explain the technique of anesthesia	305	550	35.0	63.2	16	1.8
i. To prescribe the maintenance, adaptation and interruption of the regular medication used by the patient and this according to the guidelines of the anesthesia department	200	657	23.0	75.4	14	1.6
j. To prescribe the premedication according to the guidelines of the anesthesia department and order blood or blood products	344	514	39.5	59.0	13	1.5
k. The new health care giver may do all of the above. It is sufficient to consult the anesthetist only in the cases when limits, fixed by the anesthesia department, are exceeded	370	470	42.5	53.9	31	3.6
l. The health care giver may do all of the above but has to consult the physician for every case	625	228	71.8	26.2	18	2

2. The anesthesia itself

a. Maintenance of equipment for anesthesia and the anesthesia trolley

Question	YES	NO	% YES	%NO	BLANKS	%BL
a. Trolley for anesthesia, difficult intubation	821	41	94.4	4.6	9	1
b. Anesthesia machine	704	154	80.8	17.7	13	1.5
c. Monitoring devices	779	82	89.5	9.4	10	1.1

b. Preparation of the operation room for the anesthesia procedure suggested by the preoperative anesthesia record

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) Verification of patient's identity	786	75	90.3	8.6	10	1.1
b) Verification of the disponibility and compatibilty of blood and blood products	758	105	87	12	8	1
c) Preparation of medication for general or for regional anesthesia	629	230	77.2	26.4	12	1.4
d) Ultimate verification of the anesthesia equipment	530	327	60.8	37.6	14	1.6
e) Application of the ECG electrodes, non-invasive blood pressure monitoring and saturation monitoring	838	20	96.2	2.3	13	1.5
f) Insertion of an intravenous catheter	784	78	90.0	9	9	1
g) Autonomous administration of drugs e.g. antibiotics and NSAID's	479	378	55.0	43.4	14	1.6
h) Insertion of an arterial catheter before induction	153	704	17.6	80.8	14	1.6

c. Induction

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) Administration of anesthesia drugs during pre-oxygenation by the physician anesthetist and assist the physician anesthetist during tracheal intubation	488	371	56.0	42.6	12	1.4
b) Pre-oxygenation and instrumentation of the airway, including intubation after the administration of anesthetic medication by the physician anesthetist	321	536	36.8	61.7	14	1.6
c) Connecting and adjusting the anesthesia machine settings and fixation of the endotracheal tube	308	547	35.4	62.8	16	1.8
d) Insertion of an arterial catheter by a patient who is mechanically ventilated	214	645	24.6	74.0	12	1.4
e) Insertion of a central venous catheter	37	820	4.2	94.2	14	1.6
f) Insertion of a Swan-Ganz catheter in the arteria pulmonalis	16	843	1.8	96.8	12	1.4
g) Insertion of a TEE-probe	83	774	9.5	88.9	14	1.6
h) Performing of the induction of an uncompromised patient without the presence of the anesthetist in the operation room, however explicit authorization by the physician anesthetist is mandatory	85	774	9.7	88.9	12	1.4
i) Performing of the induction of an uncompromised patient without the presence of the anesthetist in the operation room, explicit authorization by the anesthetist for each induction is not to be obtained	4	854	0.4	98.1	13	1.5

d. During anesthesia :

Would you allow the "possible future" non-physician anesthesia professional ...

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) To monitor the patient and to enter data in the anesthesiachart but without permission to administer additional drugs or to adjust the anesthesiamachine settings	643	206	73.9	23.6	22	2.5
b) To monitor the patient, to enter data in the anesthesiachart with permission to administer drugs, to adapt the concentration of the anesthesia gases and inhalation anesthetics and to change the syringe pump administration speed of drugs without consulting the physician anesthetist	213	640	24.4	73.6	18	2
c) To administer intravenous fluids as well in volume as in type (colloids, blood...) without consulting the physician anesthetist	109	749	12.5	86.0	13	1.5
d) To administer drugs, other than muscle relaxants, hypnotics, analgetics, anti-emetics and antibiotics without consulting the physician anesthetist	71	752	8.2	86.3	48	5.5
e) To decide autonomously to finish the anesthesia and to perform decurarisation without consulting the physician anesthetist	117	706	13.4	81.1	48	5.5
f) To extubate the patient without consulting the physician anesthetist	131	689	15	79.1	51	5.9
g) To transport the patient to Recovery Area unaccompanied by a physician anesthetist	457	364	52.4	41.9	50	5.7
h) To transport the patient to the Intensive Care Unit unaccompanied by a physician anesthetist	188	635	21.6	72.9	48	5.5
i) The permission to transport a patient unaccompanied by a physician anesthetist depends on the clinical condition of the patient and the type of surgery	504	317	57.9	36.4	50	5.7

e. Regional anesthesia :

Would you allow this non-physician anesthesia professional ...

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) To give a spinal anesthesia (insertion of the needle and injection) without the presence of a physician anesthetist in the operation room	14	809	1.6	92.9	48	5.5
b) To give an intravenous regional anesthesia (+ injection of medication) without the presence of a physician anesthetist in the operation room	76	743	8.7	84.3	52	6
c) To give a peridural anesthesia below the level of L2 without the presence of a physician anesthetist in the operation room	4	818	0.5	93.9	49	5.6
d) To give a peridural anesthesia below the level of L2 without the presence of a physician anesthetist in the obstetric ward	14	810	1.6	93	47	5.4
e) To give a thoracic peridural anesthesia with catheter without the presence of a physician anesthetist in the operation room	1	822	0.1	94.4	48	5.5

f) To give a plexus anesthesia without the presence of a physician anesthetist in the operation room	21	800	2.4	91.9	50	5.7
g) The administration and interpretation of the test dose	170	652	20.7	79.3	49	5.6
h) To administer the initial dose of local anesthetic without the presence of a physician anesthetist	84	733	9.6	84.2	54	6.2
i) Monitoring of a regional anesthesia without the authorization to administer additional medication	718	134	82.4	15.4	19	2.2
j) Monitoring of a regional anesthesia with authorization to inject additional drugs according to own judgement	159	695	18.2	79.8	17	2

f. Sedations :

Would you allow this non-physician anesthesia professional ...

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) To give sedation in the operation suite under supervision by a physician anesthetist	540	318	62.0	36.5	13	1.5
b) To give sedation in the operation suite without supervision by a physician anesthetist	43	810	5	93	18	2
c) To give sedation outside the operation suite under supervision by a physician anesthetist	381	472	43.7	54.3	18	2
d) To give sedation outside the operation suite without supervision by a physician anesthetist	12	837	1.4	96.1	22	2.5

g. Postoperative phase :

Would you allow this non-physician anesthesia professional ...

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) To monitor the patient in the postoperative care unit	830	31	95.3	3.6	10	1.1
b) The administration of anti-emetic drugs without consulting the physician anesthetist but according to the guidelines of the anesthesia department	758	103	87.0	11.9	10	1.1
c) The administration of analgetic drugs without consulting the physician anesthetist but according to the guidelines of the anesthesia department	668	189	76.7	21.7	14	1.6
d) To prepare the PCA solutions and to start a PCA analgesia technique	679	179	77.9	20.6	13	1.5
e) The post-operative follow-up of the patient with authorization to change administration speed and to replace any empty PCA infusion bag	439	418	50.4	48.0	14	1.6
f) Each administration of analgetic drugs needs to be confirmed by a physician anesthetist	545	303	62.6	34.8	23	2.6
g) A physician anesthetist has to be available in the hospital	629	223	77.2	26.2	19	2
h) The previous rules do also apply for analgesia administration in the labour ward	695	146	79.8	16.8	30	3.4

3. On calls :

Would you require this non-physician anesthesia professional ...

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) To be on call in the hospital ; the physician anesthetist is also present	486	332	55.8	38.2	53	6

b) To be on call in the hospital without the presence of a physician anesthetist in the hospital ; the physician anesthetist needs to come to the hospital for each case	389	445	44.7	51.1	37	4.2
c) To be on call in the hospital without the presence of a physician anesthetist in the hospital ; selected anesthesia procedures may be carried out autonomously after consultation with and authorization by the physician anesthetist ; his presence in the hospital or in the operation room is not mandatory	23	807	2.7	92.6	41	4.7
d) To be on call in the hospital without the presence of a physician anesthetist in the hospital with the authorization to give autonomously anesthesia without consultation with the physician anesthetist	2	829	0.2	95.2	40	4.6

4. Administration :

Would you allow this non-physician anesthesia professional ...

Question	YES	NO	% YES	%NO	BLANKS	%BL
a) To complete the anesthesia protocol. The physician anesthetist must agree and subscribe	670	167	76.9	19.2	34	3.9
b) To complete and sign the anesthesia protocol. It is not mandatory that the physician anesthetist agrees and signs	89	744	10.2	85.4	38	4.4
c) To register the drugs and the fluids for billing. The physician anesthetist agrees and signs	807	35	92.7	4.0	29	3.3
d) To prepare the bill for the anesthesia procedure. The physician anesthetist signs for agreement	687	145	78.9	16.6	39	4.5

Part III : Educational level required for the exertion of the new profession

1. What is the required level of education for the new profession ?

Question	ABS	%
a) Limited education and training locally in the hospital (without previous basic knowledge), given by the department of anesthesia that leads to a certificate which allows to work in that particular department only	104	11.9
b) Education and training of 2 years in an accredited school leading to the qualification of assistant nurse (no college - old type)	24	2.8
c) Education and training of 3 years at a recognised school leading to the qualification of recognized nurse (previously A2)	165	18.9
d) Education and training at high school leading to a Bachelor level (level A1 graduate)	369	42.5
e) Additional training leading to the Master level (now license) can be considered	165	18.9
f) Blanks	44	5

2. Salary

Question	ABS	%	Brut salary
a) Nursing assistant	445	62	20.048 €
b) Certified nursing assistant	187	26	20.999 €
c) Certified nurse (A2) (Basic training)	48	6.5	21.763 €
d) Technician radiology	41	5.5	23.585 €

e) Recognized nurse level A1 or Bachelor. The additional title of Intensive Care nurse or Emergency Department nurse does not entitle a supplementary fee	0	0	23.585 €
f) Nurse license in medical-social science	0	0	32.411 €

3. Source of the salary of this anesthesia co-worker ?

Question	ABS	%
a) The hospital administration	502	57.7
b) The physician anesthetist or the association of anesthetists	199	22.8
c) A specific fee for service with possible consequences on the global amount of fees for the physician anesthetists in Belgium	53	6.1
d) Specific fee for services with possible consequences on the fee for service of the physician anesthetist who supervises for this procedure	46	5.3
e) Blanks	71	8.1

4. Is this new professional entitled to an additional allowance bonus from the total amount of fees of the department of anesthesia ?

Question	ABS	%
a) Yes	377	43.2
b) No	375	43.1
c) Blanks	119	13.7

5. Who is organizationally responsible for this person ?

Question	ABS	%
a) Nursing department	281	32.3
b) Anesthesia department	529	60.7
c) Blanks	61	7

Part IV : General questions

1. What type of hospital do you work in ?

Question	ABS	%
a) Hospital with accreditation for training of physician anesthetists	552	63.4
b) Hospital without accreditation for training of physician anesthetists	277	31.8
c) Both	6	0.67
d) Blanks	36	4.13

2. How many years are you working as an anesthetist, including the year 2003 ?

Question	ABS	%
a) < 5 years	270	31
b) 6 – 10 years	169	19.4
c) 11 – 15 years	118	13.5
d) 16 – 20 years	99	11.4
e) 21 – 25 years	88	10.1
f) > 25 years	100	11.5
g) Blanks	29	3.1

3. In which year did you finish your anesthesia training ?

126 indicated to be in training
714 answers were submitted in the table.

4. How do you see the profession of anesthetist in the future ?

Question	ABS	%
a) As the only provider of anesthesia (maintaining the one-table-system)	344	39.6
b) With an anesthesia co-worker under your supervision (more-table-system)	489	56.1
c) With an anesthesia co-worker who works completely autonomously and may administer anesthesia by himself	8	0.9
d) Blanks	30	3.4

5. Do you consider that abandoning the one-table-system will have a negative impact on the quality of anesthesia ?

Question	ABS	%
a) Yes	392	45.0
b) No	431	49.5
c) Blanks	48	5.5

6. In which fields do you situate your main activity ?

Question	ABS	%
a) Operating room	762	87.5
b) Intensive Care Unit	54	6.2
c) Daycase surgery	15	1.7
d) Others	23	2.6
e) Blanks	17	2

7. Are you accredited ?

Question	ABS	%
a) Yes	731	83.9
b) No	102	11.7
c) Blanks	38	4.4

8. In which region of the Federal State of Belgium do you work ?

Question	ABS	%
a) Brussels	143	16.42
b) Flanders	399	45.81
c) Wallonia	266	30.54
d) Brussels + Flanders	2	0.23
e) Brussels + Wallonia	6	0.69
f) Brussels + Flanders + Wallonia	1	0.11
g) Blanks	54	6.20