Title: Resuscitation planning on a subacute Geriatric Evaluation and Management ward

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ABSTRACT:

AIMS: To describe the use of Acute Resuscitation Plans (ARP) among patients on a subacute geriatric ward and to identify factors associated with use of ARPs in these patients.

METHODS: The hospital records of all patients admitted to the geriatric medicine ward in 2016 were retrospectively audited.

RESULTS: An ARP was completed before separation for 333/442 (75.3%) admissions. In the event of arrest, 240 (54.3%) patients had an ARP specifying 'Care-of-the-Dying' (COD), 93 (21.0%) had an ARP specifying 'cardiopulmonary resuscitation' (CPR) and 109 (24.7%) had no resuscitation plan. Age 85-94 years (OR 1.65, $p=0.04$) and ≥ 95 years (OR 9.59, $p=0.003$), as well as Charlson index of comorbidity ≥ 2 (OR 3.4, $p<0.001$), Australian-born (OR 2.09, $p=0.002$) and admission during October-December (OR 3.81, $p<0.001$) were independently associated with increased use of ARPs.

CONCLUSIONS: ARP use was associated with older age, higher comorbidity, birth in Australia and admission later in the year.

MeSH Key words: clinical decision-making; geriatrics; health services for the aged; patient care planning; resuscitation order

INTRODUCTION:

Background:

Acute resuscitation plans (ARP), also called Not For Resuscitation (NFR) forms, are documents used to guide medical care in the event of in-hospital patient deterioration. Prescribing an ARP involves considering multiple factors(1), including a patient's likely outcome from cardiopulmonary resuscitation, as well as a patient's wishes. Internationally there is variance in practice regarding the

importance of a patient's consent when prescribing an ARP(2). Doctors are not required to perform treatments which they do not judge as medically beneficial(3). However, with limited exceptions, the doctor is obligated to inform the patient, or relevant patient representative, of their resuscitation plan(4).

There is no standardised resuscitation plan form in Victoria(5). The St Vincent's Hospital Melbourne (SVHM) ARP (see Appendix 1) is similar to the New South Wales Health Resuscitation(6) form in that it prompts the doctor to indicate, in the event of a cardio-respiratory arrest to either provide cardio-pulmonary resuscitation (CPR) or provide care of the dying (COD). COD is defined as to 'acknowledge dying and provide emotional and spiritual support to the patient and family'(7). Additionally, the plan allows doctors to outline the appropriate pathway for escalation of care: a medical emergency team review; home team review; or the provision of comfort care. The doctor is prompted to document both the basis for the resuscitation plan and with whom it has been discussed.

A recently published study revealed a low rate of completion of ARPs in the St Vincent's Hospital Melbourne (SVHM) acute wards of 7.5%(8). Geriatric Evaluation and Management (GEM) ward patients were excluded from the study. Given the nature of patients admitted to the GEM ward (generally older, frail and with multiple comorbidities) a high, if not universal, completion rate is desirable. The Australian and New Zealand Resuscitation Councils have recommended all patients have a clear and explicit resuscitation plan(9).

International evidence indicates that the likelihood of having an ARP varies depending on the ethnicity of patients(10). Additionally, those patients with more knowledge about Advanced Care Directives (ACD) are more accepting of limitations to resuscitation(10,11). Patients who are seriously ill are more likely to have an ARP. Some illnesses are more likely to have an ARP stating "not for CPR", than others (10,12–14).

We aimed to determine the completion rates of ARPs at a GEM ward of SVHM, as well as assess the extent to which ARP documentation was completed, and to explore and identify any factors (patient illness, patient demographic, treating consultant) that contribute to the likelihood of completion of ARPs.

METHODS:

Study setting and design:

A single centre, retrospective file audit of electronic records was conducted. A targeted interrogation of the Patient Administration System (PAS) provided all inpatient admissions to the Geriatric

Evaluation and Management Unit of the St George's campus of SVHM that occurred in the calendar year of 2016. The St George's GEM unit comprised 30-beds with two Geriatric Medicine consultants, two Advanced Trainees in Geriatric Medicine and two Hospital Medical Officers. Hospital policy mandated that an ARP was to be considered for each GEM unit admission. ARP forms from the acute phase of the admission were scanned into the electronic medical record and the physical copy destroyed.

The PAS interrogation also provided routinely collected data, including patient demographics, treating consultant and Functional Independence Measure (FIM) on admission and separation. Additionally, using a previously published method(8), Charlson comorbidities and a Charlson index of comorbidity (IOC)(15) were determined for each inpatient episode from separation diagnoses. Each admission episode's scanned medical record was reviewed and the presence, number and completion of ARPs (see Appendix 1) prior to separation was recorded on an audit sheet (see Appendix 2). In the case of a patient having more than one ARP, the first ARP of the admission was recorded.

This project was approved by Quality and Risk Unit of St Vincent's Hospital Melbourne (reference QA 038 / 17).

Participants:

All patients admitted to a SVHM GEM Unit from 1st January 2016 to the 31st December 2016 were included. No admissions were excluded.

Data handling and statistical analysis:

Data were transcribed from the audit sheets and combined with the PAS interrogation in a Microsoft Excel spreadsheet. Logistic regression was used to assess the association of ARP use (whether an ARP was present or not) with admission characteristics. In relation to non-ordered polytomous variables, the category with the middle ARP prevalence was taken as the comparator group e.g. ARP completion by treating physician was assessed by comparing each doctor in turn to the average (middle) doctor. Admission characteristics with a p-value < 0.20 on univariate analysis were then included in a multivariable model and, beginning with the least important explanatory variable, omitted using backward elimination. Logistic regression was also used to assess the association of ARP type (whether the ARP specified either 'care of the dying' or 'cardiopulmonary resuscitation' for cardiopulmonary arrest) and ARP characteristics. P-values < 0.05 were taken to signify statistical significance. Analyses were performed using Stata, Version 15.1 (StataCorp, USA).

RESULTS:

Admission characteristics

A resuscitation plan was present (used) in 333 of 442 (75.3%) admissions. Among patients who had an ARP, 95.5% had a single ARP during their admission while 3.9% had two and 0.6% had three. Use of ARPs and admission characteristics are shown in Table 1.

ARP use was not affected by gender, preferred language, marital or domestic partner status, or private insurance status. Forty-one percent (40.7%) of patients were aged 85-94 years and 6.6% were ≥ 95 years. Compared to those aged < 85 years, use of ARPs was higher among those aged ≥ 95 years (93.1% vs. 70.8%, $p = 0.02$), but not among patients aged 85 to 94 (78.3% vs. 70.8%, $p = 0.09$).

Use of ARPs was higher in those with a greater level of comorbidity. Compared to those with a Charlson index of comorbidity of zero, ARP use was higher among patients whose Charlson index of comorbidity was ≥ 2 (83.0% vs. 68.9%, $p = 0.005$). On univariate analysis no single Charlson comorbidity was associated with ARP completion.

Country of birth was associated with ARP use. Forty-two percent (42.3%) of patients were born outside Australia and, of these, 70.1% had an ARP, compared to 79.2% of Australian-born patients ($p = 0.03$). Seven consultant physicians attended the ward during the twelve-month period. One doctor differed significantly from the average, having an ARP use that was significantly higher (89.7% vs. 70.1%, $p < 0.006$). ARP use was significantly higher during October-December compared to January-March (89.1% vs. 71.3%, $p = 0.002$).

Multivariable analysis of admission characteristics

Age group 85-94 years (OR 1.65, $p = 0.04$) and ≥ 95 years (OR 9.59, $p = 0.003$), as well as Charlson index of comorbidity ≥ 2 (OR 3.4, $p < 0.001$), being born in Australia (OR 2.09, $p = 0.002$) and admission during October-December (OR 3.81, $p < 0.001$) were independently associated with increased use of ARPs (Table 2). Neither religious group nor consultant physician nor FIM category showed an adjusted association with ARP use and so were omitted from the final model.

Hospital outcomes

GEM unit length of stay and discharge destination are shown in Table 3. GEM unit length of stay was < 7 days in 12.2% of patients, 7-27 days in 58.4% and ≥ 28 days in 29.4%. Compared to those whose GEM unit length of stay was < 7 days, ARP use was considerably higher in those whose GEM unit length of stay was 7-27 days (73.3% vs. 57.4%, $p = 0.02$) and was higher again in those whose GEM

unit length of stay was ≥ 28 days (86.9% vs. 57.4%, $p < 0.001$). Fifty-one percent (51.4%) of patients were discharged home, 34.4% to another hospital, 13.3% to residential care and 1.8% died in hospital. Patients discharged to residential care were much more likely to have an ARP than those discharged home (89.8% vs. 70.0%, $p = 0.003$).

ARP Characteristics

Of the 333 ARPs, 240 (72.1%) specified 'care of the dying' (COD) in the event cardiopulmonary arrest while the other 93 (27.9%) specified 'cardiopulmonary resuscitation' (CPR). Forms specifying COD were completed differently to forms specifying CPR. Characteristics of the ARPs are shown in Table 4.

A reason informing the ARP was stated on 80.4% of COD forms but on only 33.3% of CPR forms ($p < 0.001$). Only 7 (2.1%) forms indicated that an advance care directive had been considered; all these were COD forms. Multiple fields of the ARP are related to consultation with the patient or the patient's representative. A positive response in any of these fields, suggesting some acknowledgement of the views of the patient or patient's representative, was present on 57.9% of COD forms and on 23.7% of CPR forms ($p < 0.001$). Consultant physician participation was indicated to be low: 30.4% on COD forms and 20.4% on CPR forms ($p = 0.07$). The authorising officer was named on 94.2% of COD forms compared to 82.8% of CPR forms ($p = 0.002$) and the form was dated on 96.7% of COD forms compared to 86.0% of CPR forms ($p = 0.001$).

CPR Candidates

There were 93 patients with an ARP specifying CPR in the event of arrest. Another 109 patients had no ARP, and the default position in this situation is to provide CPR in the event of arrest. Therefore, 202/442 (45.7%) patients were candidates for CPR in the event of arrest.

There were 29 (6.6%) patients who were candidates for CPR and who had one or more Charlson comorbidities and who were aged 85 years or older; 13 had an ARP specifying CPR and the other 16 had no resuscitation plan.

DISCUSSION

We conducted a retrospective audit of ARPs for all admissions to a single GEM unit over a 12-month period. This revealed that 75.4% of admissions to the GEM unit had at least one ARP during their time on the ward. This is significantly higher than the rate of ARP documentation in the acute wards of SVHM, at 7.5%, and it is higher than the SVHM acute general medical units whose completion rate was 63.6%(8). This is not surprising as the priorities of acute management are diagnostic and

therapeutic, and patients often have a shorter length of stay. However, GEM unit admission is an ideal time for more holistic assessment, including resuscitation planning. A point prevalence study of five Victorian hospitals found 11.9% had a Do Not Resuscitate order, this rose to 24.7% when considering patients aged over 80 years(16).

Only seven (2.1%) ARPs documented that an ACD was available, well below the prevalence of ACDs in the general Victorian community of 13.4%(17). This suggests either that the patients had ACDs but these were overlooked, or that ACD utilisation in the patient group is lower than in the general population. Under the new Victorian Medical Treatment and Planning Decisions Act 2016, providing resuscitation to someone who has an instructional ACD against it will be unlawful(18).

Although associated with multimorbidity, use was not associated with any specific comorbidity. ARP use was similar among those with and those without cancer and among those with and those without congestive heart failure, though the relatively small number of patients with these conditions makes it difficult to draw firm conclusions. Almost a quarter of the patients had dementia. Use of ARPs was very similar in those who had dementia and those who did not. These results differ to previous studies which found that patients with certain diseases are more likely to have limitations to resuscitation than those with other conditions(10,12).

The difference in ARP completion seen in patients who are born outside of Australia is possibly due to cultural barriers to discussion of goals of care. This is consistent with international evidence that there are different rates of awareness of the concepts of ARP based on ethnicity(11,19). The difference did not appear to be due a language barrier, as neither preferring a language other than English, nor requiring an interpreter, was associated with ARP completion. Private health insurance, a possible surrogate for economic standing, was not associated with having a documented resuscitation plan. The increased rate of ARP completion later in the year may reflect that, as junior clinicians become more experienced, they are more comfortable addressing resuscitation planning.

It is concerning that, despite hospital policy mandating that an ARP is to be considered for all patients(7), some very elderly patients with significant comorbidity either had no resuscitation plan or had a resuscitation plan that advised clinicians to perform CPR in the event of cardiopulmonary arrest. This might reflect misperceptions among patients and clinicians about the likelihood of a positive outcome should arrest occur in this population and demonstrates a disconnection between hospital policy and clinical practice. Adequate policy alone may be insufficient to change clinical practice(20,21). A recent theory-led overview of systematic reviews concluded that interventions that involve education, action and monitoring (such as audit and feedback, reminders and

educational outreach) are more effective(22). Another overview focusing on primary healthcare professionals also supports multifaceted interventions including education, audit and feedback(23). A 2012 Cochrane Review concluded audit and feedback can improve professional practice(24).

A weakness of this retrospective study is the fact that it was conducted in a single ward, limiting generalisability to other settings. Additionally, it included a period of three months while the author worked as a registrar on the ward, although the conception of this study occurred after the period examined. As this was a retrospective review of files, it is also possible that apparent low level of communication with patients or their representatives and senior staff, was due to a failure of documentation of discussions, as opposed to a failure of having the discussions. Additionally, the Charlson IOC was determined from separation diagnoses, and so may underrepresent the actual burden of diseases on the GEM ward.

CONCLUSION

Use of ARPs on the GEM ward was higher than had previously been observed on the acute wards of the health service, but ARP completion was far from universal and some patients at elevated risk of a poor outcome from cardiopulmonary arrest had either no resuscitation plan or a plan recommending CPR. Patients born in Australia as well as those with greater comorbidity, those who were older and those admitted in the latter part of the year were more likely to have an ARP. The thoroughness of ARP completion was lower than expected, especially when the ARP specified commencing CPR for cardiopulmonary arrest. Patients and their representatives, as well as ACDs and senior clinicians, were often absent from the resuscitation planning process. Future opportunities include research to better understand the cultural barriers to resuscitation planning. With the recent implementation of new Victorian medical treatment and planning legislation, further education and evaluation of ARP documentation will be important.

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Table 1. Admission characteristics						
	No ARP (N=109) n (% of row total)	ARP (N=333) n (% of row total)	Row Total	Odds Ratio for ARP	95% CI	P
Sex						
Female	71 (26.1%)	201 (73.9%)	272	1.00	-	-
Male	38 (22.4%)	132 (77.6%)	170	1.23	0.78-1.93	0.37
Age Group						
< 85 years	68 (29.2%)	165 (70.8%)	233	1.00	-	-
85-94 years	39 (21.7%)	141 (78.3%)	180	1.49	0.95-2.34	0.09
≥ 95 years	2 (6.9%)	27 (93.1%)	29	5.56	1.29-24.05	0.02
FIM on Admission						
≥ 78	32 (31.4%)	70 (68.6%)	102	1.00	-	-
19-77	72 (23.5%)	235 (76.5%)	307	1.49	0.91-2.45	0.11
18	5 (15.2%)	28 (84.8%)	33	2.56	0.91-7.24	0.08
Charlson Index of Comorbidity						
0	52 (31.1%)	115 (68.9%)	167	1.00	-	-
1	34 (24.3%)	106 (75.7%)	140	1.41	0.85-2.34	0.18
≥ 2	23 (17.0%)	112 (83.0%)	135	2.20	1.26-3.84	0.005
Language Preference						
Not English	26 (28.9%)	64 (71.1%)	90	1.00	-	-
English	83 (23.6%)	269 (76.4%)	352	1.32	0.78-2.21	0.30
Country of Birth						
Not Australia	56 (29.9%)	131 (70.1%)	187	1.00	-	-
Australia	53 (20.8%)	202 (79.2%)	255	1.63	1.05-2.52	0.03
Domestic Partner						

Not partnered	76 (24.1)	239 (75.9)	315	1.00	-	-
Partnered	33 (26.0)	94 (74.0)	127	0.91	0.56-1.45	0.68
Funding						
Private	44 (25.9%)	126 (74.1%)	170	1.00	-	-
Public	65 (23.9%)	207 (76.1%)	272	1.11	0.71-1.73	0.64
Consultant Physician						
Doctor D	20 (29.9%)	47 (70.1%)	67	1.00	-	-
Doctor A	6 (31.6%)	13 (68.4%)	19	0.92	0.31-2.77	0.89
Doctor B	33 (31.4%)	72 (68.6%)	105	0.93	0.48-1.81	0.83
Doctor C	8 (30.8%)	18 (69.2%)	26	0.96	0.36-2.56	0.93
Doctor E	27 (24.1%)	85 (75.9%)	112	1.34	0.68-2.64	0.40
Doctor F	8 (17.8%)	37 (82.2%)	45	1.97	0.78-4.97	0.15
Doctor G	7 (10.3%)	61 (89.7%)	68	3.71	1.45-9.50	0.006
Quarter-of-Year						
January-March	33 (28.7%)	82 (71.3%)	115	1.00	-	-
April-June	26 (25.0%)	78 (75.0%)	104	1.21	0.66-2.20	0.54
July-September	39 (32.0%)	83 (68.0%)	122	0.86	0.49-1.49	0.58
October-December	11 (10.9%)	90 (89.1%)	101	3.29	1.56-6.94	0.002
ARP = acute resuscitation plan. CI = confidence interval. FIM = functional independence measure.						
Odds ratios, 95% confidence intervals and <i>P</i> -values were calculated using logistic regression and compare each category of a variable to the baseline category of the variable on the presence of an ARP.						

Table 2. Multivariable model of patient admission characteristics for the presence of an Acute Resuscitation Plan			
	Odds Ratio	95% CI	<i>P</i>
Age Group			
< 85 years	1.0	-	-
85-94 years	1.65	1.02-2.68	0.04
≥ 95 years	9.59	2.13-43.21	0.003
Charlson IOC			
0	1.0	-	-
1	1.54	0.90-2.64	0.12
≥ 2	3.40	1.85-6.23	< 0.001

Country of Birth			
Not Australia	1.0	-	-
Australia	2.09	1.31-3.36	0.002
Quarter-of-Year			
Jan-Mar	1.0	-	-
Apr-Jun	1.26	0.67-2.35	0.48
Jul-Sep	0.72	0.40-1.30	0.27
Oct-Dec	3.81	1.75-8.30	0.001
CI = confidence interval. IOC = index of comorbidity. N = 442. Area under ROC curve 0.72. Hosmer-Lemeshow $P = 0.30$			

Table 3. Hospital length of stay and discharge destination						
	No ARP (N=109) n (% of <u>row</u>)	ARP (N=333) n (% of <u>row</u>)	Row Total	Odds Ratio for ARP	95% CI	<i>P</i>

	total)	total)				
Length of Stay (subacute phase of admission)						
< 7 days	23 (42.6%)	31 (57.4%)	54	1.00	-	-
7-27 days	69 (26.7%)	189 (73.3%)	258	2.03	1.11-3.72	0.02
≥ 28 days	17 (13.1%)	113 (86.9%)	130	4.93	2.35-10.36	< 0.001
Discharge Destination						
Home	67 (30.0%)	156 (70.0%)	223	1.00	-	-
Hospital Care	36 (23.7%)	116 (76.3%)	152	1.38	0.86-2.22	0.18
Residential Care	6 (10.2%)	53 (89.8%)	59	3.79	1.56-9.25	0.003
Deceased	-	8 (100%)	8	-	-	-
ARP = acute resuscitation plan. CI = confidence interval.						
Odds ratios, 95% confidence intervals and <i>P</i> -values were calculated using logistic regression and compare each category of a variable to the baseline category of the variable on the presence of an ARP.						

Table 4. Acute Resuscitation Plan characteristics						
	All ARPs (N = 333) n (%)	For 'CPR' (N = 93) n (%)	For 'Care of Dying' (N = 240) n (%)	Odds Ratio	95% CI	<i>P</i>
Reason(s) for the decision were recorded	224 (67.3%)	31 (33.3%)	193 (80.4%)	8.21	4.80-14.04	< 0.001
Consultation with the patient was recorded	124 (37.2%)	19 (20.4%)	105 (43.8%)	3.03	1.72-5.33	< 0.001
Consultation with an advance care directive was recorded	7 (2.1%)	0 (0%)	7 (2.9%)	-	-	-
Consultation with a patient representative was recorded	75 (22.5%)	6 (6.5%)	69 (28.8%)	5.85	2.44-14.01	< 0.001
Consultation of any kind was recorded	161 (48.3%)	22 (23.7%)	139 (57.9%)	4.44	2.58-7.64	< 0.001
Senior medical staff participation was recorded	92 (27.6%)	19 (20.4%)	73 (30.4%)	1.70	0.96-3.02	0.07
Authorising officer was named	303 (91.0%)	77 (82.8%)	226 (94.2%)	3.35	1.56-7.19	0.002
Form was dated	312 (93.7%)	80 (86.0%)	232 (96.7%)	4.71	1.88-11.79	0.001

ARP = acute resuscitation plan. CPR = cardiopulmonary resuscitation.

Odds ratios, 95% confidence intervals and *P*-values were calculated using logistic regression and compare forms that specified 'care of the dying' in the event of cardiopulmonary arrest to those that specified 'CPR'.

APPENDIX 1: Acute Resuscitation Plan

APPENDIX 2:

AUDIT TEMPLATE

UR: _____ Visit number: _____ Surname: _____

Admission date: _____ DC Date: _____

Team 1 or team 2: _____

ARP Number: _____

Q1: Any conditions listed: Yes ☐ No ☐Q2: Patient consulted: Yes ☐ No ☐ Not Ans. ☐Q3: Family consulted: Yes ☐ No ☐ Not Ans. ☐Q4: Advanced care Plan Yes ☐ No ☐ Not Ans. ☐Q5: P resp name stat Yes ☐ No ☐Q6: P Resp relationship Yes ☐ No ☐Q7: POA Name stated Yes ☐ No ☐Q8 POA relationship Yes ☐ No ☐Q9: CPR Yes ☐ No ☐Q10 COD Yes ☐ No ☐

Q11: Code Yes ☐ No ☐Q12: HUR Yes ☐ No ☐Q13 CC Yes ☐ No ☐Q14: DW sen. Staff: Yes ☐ No ☐ Not Ans. ☐Q15: SMS name stated Yes ☐ No ☐Q16 MR Doc date: Yes ☐ No ☐Q17: review date: Yes ☐ No ☐Q18 Auth MO name Yes ☐ No ☐Q19: Auth MO Sig Yes ☐ No ☐Q20: Sig dated: Yes ☐ No ☐Q21 contact details: Yes ☐ No ☐

What was reason?

AGE 1	COMORBIDTY 2
FAMILY/MPOA/PERSON RESPONSIBLE WISHES 3	PATIENT WISHES including ACD 4
BLANK 5	OTHER 6
Poor outcome likely 7	Functional ability 8

Cognitive testing:

sMMSE: Yes ☐ No ☐

sMMSE score: _____

sMMSE >25: Yes ☐ No ☐ Not Ans. ☐

RUDAS: Yes ☐ No ☐

RUDAS score: _____

RUDAS >22: Yes ☐ No ☐ Not Ans. ☐

MOCA: Yes ☐ No ☐

MOCA score: _____

MOCA >25: Yes ☐ No ☐ Not Ans. ☐

Appendix 3. Prevalent Charlson comorbidities						
	No ARP (N=109) n (% of <u>row</u> total)	ARP (N=333) n (% of <u>row</u> total)	Row Total	Odds Ratio for ARP	95% CI	P
Congestive heart failure						
Absent	104 (25.5%)	304 (74.5%)	408	1.0	-	-
Present	5 (14.7%)	29 (85.3%)	34	1.98	0.75-5.26	0.17
Cancer						
Absent	105 (25.2%)	312 (74.8%)	417	1.0	-	-
Present	4 (16.0%)	21 (84.0%)	25	1.77	0.59-5.26	0.31
Chronic pulmonary disease						
Absent	104 (25.3%)	307 (74.7%)	411	1.0	-	-

Present	5 (16.1%)	26 (83.9%)	31	1.76	0.66-4.71	0.26
Cerebrovascular disease						
Absent	103 (25.1%)	307 (74.9%)	410	1.0	-	-
Present	6 (18.8%)	26 (81.2%)	32	1.45	0.58-3.63	0.42
Diabetes with complications						
Absent	94 (25.8%)	270 (74.2%)	364	1.0	-	-
Present	15 (19.2%)	63 (80.8%)	78	1.46	0.79-2.69	0.22
Dementia						
Absent	88 (25.9%)	252 (74.1%)	340	1.0	-	-
Present	21 (20.6%)	81 (79.4%)	102	1.35	0.79-2.31	0.28
Renal disease						
Absent	101 (25.0%)	303 (75.0%)	109	1.0	-	-
Present	8 (21.1%)	30 (78.9%)	38	1.25	0.56-2.81	0.59
ARP = acute resuscitation plan. CI = confidence interval.						
Odds ratios, 95% confidence intervals and <i>P</i> -values were calculated using logistic regression and compare each category of a variable to the baseline category of the variable on the presence of an ARP.

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Date:

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