Supplements

Annexe 1. Cause-specific death categories

Cardiovascular:
Myocardial Infarction
Hyperkalemia
Pericarditis
Cardiac Tamponade
Atherosclerotic Heart Disease
Cardiomyopathy
Cardiac Arrhythmia
Cardiac Arrest
Valvular Heart Disease
Pulmonary Edema
Congestive heart failure
Pulmonary Embolus
Cerebrovascular Accident
Intracranial Hemorrhage
Ischemic Brain Damage
Anoxic Encephalopathy

Infection:
Septicemia due to vascular access
Peritoneal access infectious complication
Peritonitis
Central nervous system infection
Septicemia, Due To Peritonitis
Septicemia, Due To Peripheral Vascular Disease
Gangrene
Septicemia
Pulmonary Infection
CMV
Tuberculosis
Cardiac infection (endocarditis)
Abdominal infection
Hepatitis B
Hepatitis C
Other Viral Hepatitis
Genito-urinary infection
Viral Infection, Other
Infection, Other

Social
Withdrawal from dialysis/uremia
Suicide
Drug Overdose (Street Drugs)
Accident Unrelated To Treatment

Other
Liver-Drug Toxicity
Cirrhosis
Polycystic Liver Disease
Liver Failure
Perforation of Peptic Ulcer
Perforation of Bowel
Hypokalemia
Hypernatremia
Hyponatremia
Bone Marrow Depression
Cachexia
Malignant Disease
Aids
Dementia
Seizures
Chronic Obstructive Lung Disease
Complications Of Surgery
Air Embolism
Acidosis
Adrenal insufficiency
Gastro-Intestinal Hemorrhage
Pancreatitis
Hemorrhage from Vascular Access
Hemorrhage from Dialysis Circuit
Mesenteric Infarction/Ischemic Bowel
Other Hemorrhage
Hypoglycemia
Hyperglycemia
Diabetic coma
Hyperthyroidism
Hypothyroidism

Unknown
Unknown

Table S1. Baseline characteristics of incident PD patients transferred to HD who did or did not resume PD within 180 days of transfer to HD.

	ANZDATA		CORR		ERA Registry	
Characteristics	Resumed PD, n=1300	Remained on HD, n=5383	Resumed PD, n=932	Remained on HD, n=4915	Resumed PD, n=3971	Remained on HD, n=17,603
Age at KRT start (years)	61 [50-70]	50 [49-70]	61 [50-71]	63 [51-72]	60 [48-69]	61 [49-71]
Male	732 (56%)	3146 (58%)	527 (59%)	2926 (60%)	2582 (65%)	11232 (64%)
Primary kidney disease						
Glomerulenphritis	365 (28%)	1356 (25%)	193 (21%)	909 (19%)	648 (16)	2707 (15%)
Diabetic nephropathy	425 (32%)	1971 (37%)	343 (38%)	1969 (41%)	835 (21)	4332 (25%)
Hypertensive disease	183 (14%)	707 (13%)	141 (16%)	882 (18%)	521 (13)	2649 (15%)
Other	326 (25%)	1336 (25%)	222 (25%)	1019 (21%)	1967 (49)	7915 (45%)
Year of KRT start						
2000-2004	414 (32%)	1859 (35%)	313 (36%)	1912 (39%)	1272 (32)	5916 (34%)
2005-2009	536 (41%)	2051 (38%)	395 (42%)	2010 (41%)	1522 (38)	6550 (37%)
2010-2014	350 (27%)	1473 (27%)	224 (24%)	994 (20%)	1177 (30)	5137 (29%)
PD vintage (years)	1.3 [0.7-2.3]	1.4 [0.6-2.7]	1.4 [0.7-2.6]	1.4 [0.5-2.7]	0.9 (0.3-1.9)	1.2 [0.5-2.5]
Days on temporary HD	59 [36-99]	-	57 [35-94]	-	49 [26-83]	-

Data unavailable in USRDS dataset used for analysis. Data represent number (%) or median [IQR]
Abbreviation: KRT, kidney replacement therapy

Table S2. Crude mortality rates per 100 patient-years.

	0-30 d	31-60 d	61-90 d	91-120 d	121-150 d	151-180 d
ANZDATA						
2000-2004	54.2	40.5	25.4	19.2	27.7	22.1
2005-2009	50.1	30.5	22.0	16.2	18.7	22.4
2010-2014	35.7	23.0	12.7	19.1	4.0	9.2
p-value						
(between era)	*0.04*	*0.03*	*0.05*	*0.74*	*<0.001*	*0.01*
all	**47.6**	**31.9**	**20.6**	**18.0**	**17.8**	**18.5**
CORR						
2000-2004	76.8	36.8	30.1	27.8	24.7	22.6
2005-2009	64.9	32.2	20.8	13.9	18.4	18.8
2010-2013	58.1	24.3	26.2	21.2	7.0	13.2
p-value						
(between era)	*0.21*	*0.26*	*0.24*	*0.03*	*0.03*	*0.35*
all	**67.7**	**32.4**	**25.4**	**20.7**	**18.8**	**19.3**
ERA Registry						
2000-2004	41.6	37.4	34.7	26.0	23.2	19.3
2005-2009	30.0	32.4	26.0	21.0	14.2	16.7
2010-2014	23.4	22.8	19.9	13.0	13.5	15.7
p-value						
(between era)	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*<0.001*	*0.372*
all	**32.0**	**31.4**	**27.2**	**20.4**	**17.0**	**17.4**
USRDS						
2000-2004	39.5	39.3	33.0	27.4	26.0	24.6
2005-2009	34.8	33.0	28.5	25.0	23.6	22.0
2010-2014	29.2	30.0	26.4	22.0	20.3	19.8
all	**34.5**	**34.1**	**29.3**	**25.0**	**23.3**	**22.2**

Table S3. Adjusted hazard ratios for mortality, and their 95% confidence intervals in ANZDATA during early, medium and late periods, with adjustment for cause of transfer, age, sex, primary kidney disease, year of kidney replacement therapy initiation and PD duration before transfer to HD.

Variable	HR (95% CI) <90 days	p-value	HR (95% CI) 90-180 days	p-value	HR (95% CI) >180 days	p-value
Age , *ref. <50 years*						
50-59	2.01 (1.40-2.87)	<0.001	1.24 (0.80-1.92)	0.33	1.57 (1.37-1.79)	<0.001
60-69	2.86 (2.05-3.98)	<0.001	1.79 (1.21-2.64)	0.004	2.00 (1.76-2.27)	<0.001
≥70	4.70 (3.41-6.49)	<0.001	2.51 (1.71-3.69)	<0.001	2.92 (2.57-3.31)	<0.001
Sex, *ref. Female*						
Male	0.80 (0.67-0.96)	0.01	0.73 (1.71-3.69)	0.01	1.05 (0.9701.13)	0.27
Primary Kidney Disease, *ref. Diabetes*						
GN	0.70 (0.54-0.90)	0.005	0.51 (0.35-0.72)	<0.001	0.58 (0.52-0.65)	<0.001
Hypertensive	0.99 (0.76-1.29)	0.95	0.88 (0.62-1.26)	0.49	0.76 (0.68-0.86)	<0.001
Other	0.92 (0.74-1.16)	0.51	0.53 (0.38-0.75)	<0.001	0.64 (0.58-0.72)	<0.001
Year, *ref. 2000-2004*						
2005-2009	0.92 (0.76-1.11)	0.38	0.85 (0.65-1.11)	0.22	0.82 (0.75-0.89)	<0.001
2010-2014	0.68 (0.53-0.88)	0.003	0.46 (0.32-0.67)	<0.001	0.80 (0.69-0.91)	0.001
PD vintage, *ref. <6 mths*						
6 mths - 3 yrs	1.16 (0.91-1.47)	0.22	1.25 (0.91-1.73)	0.17	1.14 (1.04-1.26)	0.007
≥ 3 years	1.91 (1.47-2.49)	<0.001	1.58 (1.08-2.31)	0.02	1.32 (0.69-0.91)	0.001
Cause of transfer, *ref. Infection, n=2963*						
UF/clearance, *n=1174*	0.66 (0.50-0.88)	0.004	0.94 (0.65-1.37)	0.75	0.91 (0.81-1.02)	0.11
Mechanical, *n=1010*	0.37 (0.25-0.53)	<0.001	0.69 (0.44-1.07)	0.10	0.81 (0.72-0.91)	<0.001
Social, *n=829*	1.01 (0.78-1.30)	0.93	1.78 (1.27-2.47)	0.001	1.14 (1.00-1.28)	0.04
Other, *n=633*	1.06 (0.79-1.43)	0.68	1.01 (0.62-1.62)	0.98	0.99 (0.85-1.15)	0.87

*ANZDATA only, GN: glomerulonephritis, HD: hemodialysis, mths: months, PD: peritoneal dialysis, ref: reference category, UF: ultrafiltration

Figure S1. Crude rates of transfer to HD (≥1 day) and mortality in all incident PD patients in each registry per 100 patient-years, by cohort year of kidney replacement therapy initiation.

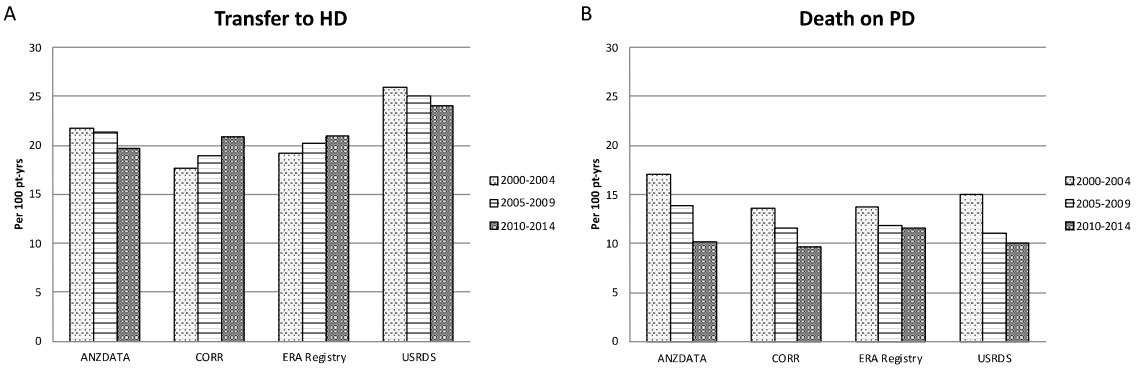


Figure S2. Cause of death after transfer from PD to HD, by 30-day period in (A) ANZDATA, (B) CORR, and (C), ERA REGISTRY. Data unavailable in USRDS cohort.

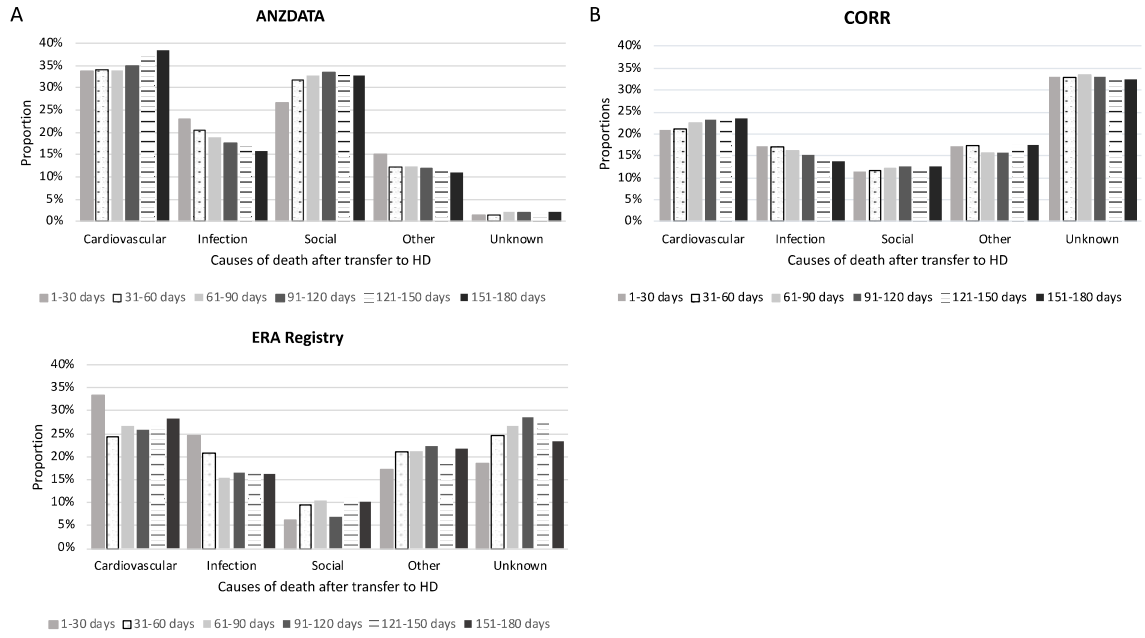


Figure S3. Forest Plots of the adjusted hazard ratios for mortality after transfer from PD to HD, stratified by early (<90d), medium (90-180d) and late (>180d) period in (A) ANZDATA, (B) CORR, (C), ERA REGISTRY and (D) USRDS. Adjusted for age, sex, primary kidney disease, year of kidney replacement therapy initiation and PD duration. before transfer to HD.

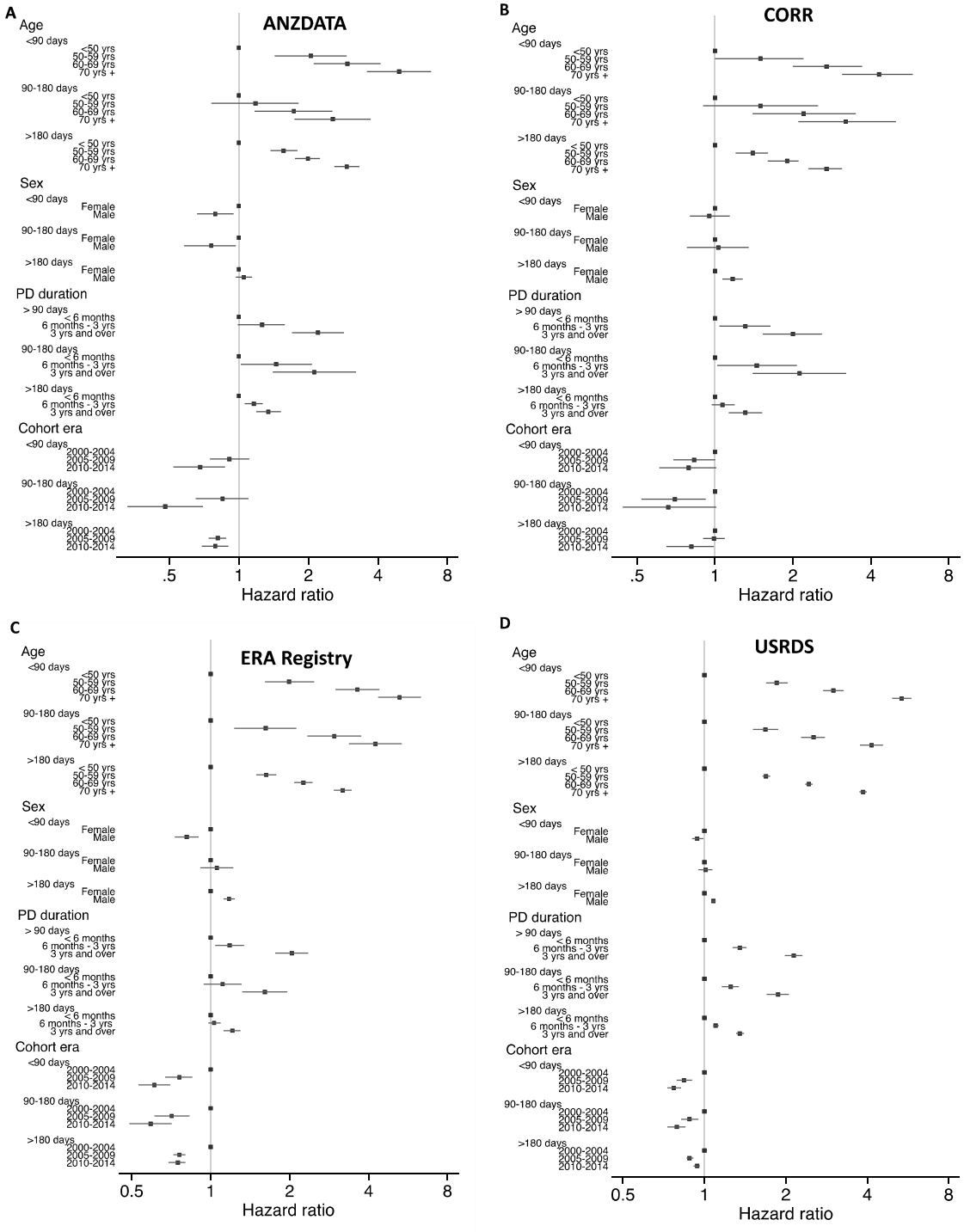
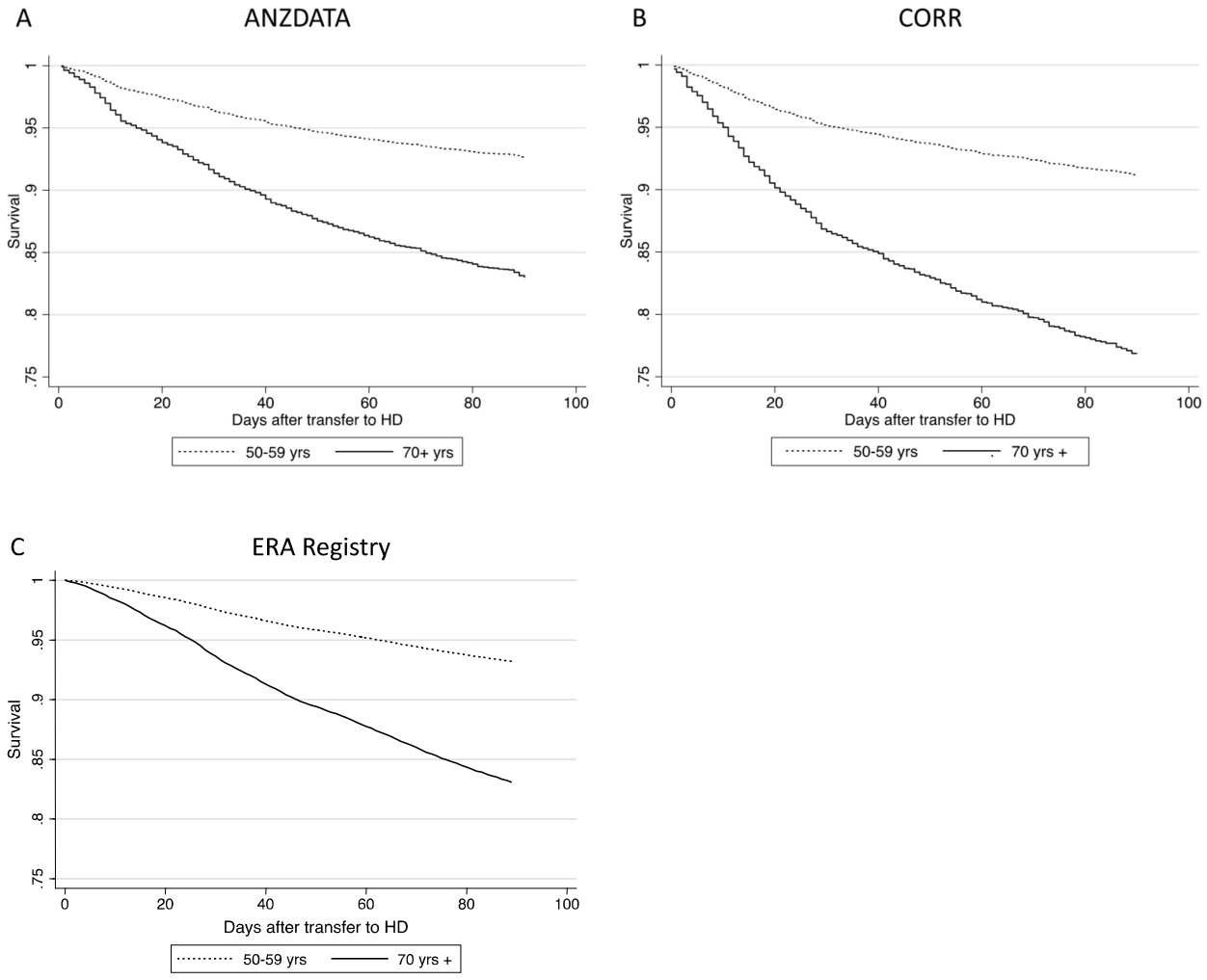


Figure S4 Adjusted survival curves for the initial 90 days after transfer from PD to HD in A) ANZDATA, B) CORR and C) ERA REGISTRY. Data adjusted for male sex, diabetic nephropathy, PD vintage > 3 years, era 2010-2014 and age as displayed (≥70 years versus 50-59 years).



STROBE Statement—Checklist of items that should be included in reports of ***cohort studies***

	Item No	Recommendation	
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract	✓
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found	✓
Introduction			
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported	✓
Objectives	3	State specific objectives, including any prespecified hypotheses	✓
Methods			
Study design	4	Present key elements of study design early in the paper	✓
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection	✓
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up	✓
		(*b*) For matched studies, give matching criteria and number of exposed and unexposed	
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable	✓
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group	✓
Bias	9	Describe any efforts to address potential sources of bias	✓
Study size	10	Explain how the study size was arrived at	✓
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why	✓
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding	✓
		(*b*) Describe any methods used to examine subgroups and interactions	✓
		(*c*) Explain how missing data were addressed	✓
		(*d*) If applicable, explain how loss to follow-up was addressed	
		(*e*) Describe any sensitivity analyses	✓
Results			
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed	✓
		(b) Give reasons for non-participation at each stage	
		(c) Consider use of a flow diagram	
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders	✓
		(b) Indicate number of participants with missing data for each variable of interest	✓
		(c) Summarise follow-up time (eg, average and total amount)	✓
Outcome data	15*	Report numbers of outcome events or summary measures over time	✓
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included	✓
		(*b*) Report category boundaries when continuous variables were categorized	✓
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period	

Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses	✓
Discussion			
Key results	18	Summarise key results with reference to study objectives	✓
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias	✓
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence	✓
Generalisability	21	Discuss the generalisability (external validity) of the study results	✓
Other information			
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based	✓

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at http://www.strobe-statement.org.