Association of non-alcoholic fatty liver disease and all-cause mortality in hospitalized cardiovascular disease patients: a systematic review and meta-analysis

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Table S1 Search algorithms

Database	No	Step search algorithm	Items found
Pubmed	#1	Search Nonalcoholic Fatty Liver Disease	17760
	#2	Search Fatty Liver, Nonalcoholic	18393
	#3	Search Fatty Livers, Nonalcoholic	13726
	#4	Search Liver, Nonalcoholic Fatty	18393
	#5	Search Livers, Nonalcoholic Fatty	13726
	#6	Search Nonalcoholic Fatty Liver	18393
	#7	Search Nonalcoholic Fatty Livers	13726
	#8	Search Nonalcoholic Steatohepatitis	16051
	#9	Search Nonalcoholic Steatohepatitides	13400
	#10	Search Steatohepatitides, Nonalcoholic	13400
	#11	Search Steatohepatitis, Nonalcoholic	16051
	#12	Search (((((((((((((Steatohepatitis, Nonalcoholic) OR Steatohepatitides, Nonalcoholic) OR Nonalcoholic Steatohepatitides) OR Nonalcoholic Steatohepatitis) OR Nonalcoholic Fatty Livers) OR Nonalcoholic Fatty Liver) OR Livers, Nonalcoholic Fatty) OR Liver, Nonalcoholic Fatty) OR Fatty Livers, Nonalcoholic) OR Fatty Liver, Nonalcoholic) OR Nonalcoholic Fatty Liver Disease) OR NAFLD) OR Non-alcoholic Fatty Liver Disease) OR non-alcoholic fatty liver disease	20067
	#13	Search mortality	1145113
	#14	Search Mortalities	1149041
	#15	Search Case Fatality Rate	1147504
	#16	Search Case Fatality Rates	1146113
	#17	Search Rate, Case Fatality	1147504
	#18	Search Rates, Case Fatality	1146113
	#19	Search Mortality, Excess	1145113
	#20	Search Excess Mortalities	1145161
	#21	Search Mortalities, Excess	1145161
	#22	Search Excess Mortality	1145113
	#23	Search Decline, Mortality	1145113
	#24	Search Declines, Mortality	1145113
	#25	Search Mortality Declines	1145113
	#26	Search Mortality Decline	1145113
	#27	Search Mortality Determinants	1145113
	#28	Search Determinant, Mortality	1145113
	#29	Search Mortality Determinant	1145113
	#30	Search Determinants, Mortality	1145113
	#31	Search Mortality, Differential	1145113
	#32	Search Differential Mortalities	1145186
	#33	Search Mortalities, Differential	1145186
	#34	Search Differential Mortality	1145113
	#35	Search Age-Specific Death Rate	1146099
	#36	Search Age-Specific Death Rates	1145890
	#37	Search Death Rate, Age-Specific	1146099
	#38	Search Death Rates, Age-Specific	1145890

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Database	No	Step search algorithm	Items found
	#39	Search Rate, Age-Specific Death	1146099
	#40	Search Rates, Age-Specific Death	1145890
	#41	Search Age Specific Death Rate	1146099
	#42	Search Death Rate	1193613
	#43	Search Death Rates	1169900
	#44	Search Rate, Death	1193613
	#45	Search Rates, Death	1169900
	#46	Search Mortality Rate	1145113
	#47	Search Mortality Rates	1145113
	#48	Search Rate, Mortality	1145113
	#49	Search Rates, Mortality	1145113
	#50	Search non-alcoholic fatty liver disease	14063
	#51	Search (((((((((((((((((((((((((((((((Rates, Mortality) OR Rate, Mortality) OR Mortality Rates) OR Mortality Rate) OR Rates, Death) OR Rate, Death) OR Death Rates) OR Death Rate) OR Age Specific Death Rate) OR Rates, Age-Specific Death) OR Rate, Age-Specific Death) OR Death Rates, Age-Specific) OR Death Rate, Age-Specific) OR Age-Specific Death Rates) OR Age-Specific Death Rate) OR Differential Mortality) OR Mortalities, Differential) OR Differential Mortalities) OR Mortality, Differential) OR Determinants, Mortality) OR Mortality Determinant) OR Determinant, Mortality) OR Mortality Determinants) OR Mortality Decline) OR Mortality Declines) OR Declines, Mortality) OR Decline, Mortality) OR Excess Mortality) OR Mortalities, Excess) OR Excess Mortalities) OR Mortality, Excess) OR Rates, Case Fatality) OR Rate, Case Fatality) OR Case Fatality Rates) OR Case Fatality Rate) OR Mortalities) OR mortality	1216372
	#52	Search Cardiovascular Diseases	2304097
	#53	Search Cardiovascular Disease	2379651
	#54	Search Disease, Cardiovascular	2379651
	#55	Search Diseases, Cardiovascular	2304097
	#56	Search (((Diseases, Cardiovascular) OR Disease, Cardiovascular) OR Cardiovascular Disease) OR Cardiovascular Diseases	2379651
	#57	Search hospital mortalities	376952
	#58	Search Mortality, In-Hospital	375766
	#59	Search In-Hospital Mortalities	376952
	#60	Search Mortalities, In-Hospital	376952
	#61	Search Non alcoholic Fatty Liver Disease	14063
	#62	Search In-Hospital Mortality	375766
	#63	Search Mortality, Hospital	375766
	#64	Search Mortalities, Hospital	376952
	#65	Search Mortalities, In-house	375819
	#66	Search In-house Mortalities	375819
	#67	Search In-house Mortality	377888
	#68	Search Mortalities, In house	375819

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Database	No	Step search algorithm	Items found
	#69	Search Mortality, In-house	377888
	#70	Search Mortality, Inhospital	375943
	#71	Search Hospital Mortalities	376952
	#72	Search NAFLD	16197
	#73	Search In Hospital Mortalities	376952
	#74	Search Inhospital Mortalities	375769
	#75	Search Mortalities, Inhospital	375769
	#76	Search In Hospital Mortality	375766
	#77	Search Hospital Mortalities, In	376952
	#78	Search Hospital Mortality, In	375766
	#79	Search Mortalities, In Hospital	376952
	#80	Search Mortality, In Hospital	375766
	#81	Search Inhospital Mortality	375943
	#82	Search (((((((((((((((((((((Inhospital Mortality) OR Mortality, In Hospital) OR Mortalities, In Hospital) OR Hospital Mortality, In) OR Hospital Mortalities, In) OR In Hospital Mortality) OR Mortalities, Inhospital) OR Inhospital Mortalities) OR In Hospital Mortalities) OR Hospital Mortalities) OR Mortality, Inhospital) OR Mortality, In-house) OR Mortalities, In house) OR In-house Mortality) OR In-house Mortalities) OR Mortalities, In-house) OR Mortalities, Hospital) OR Mortality, Hospital) OR In-Hospital Mortality) OR Mortalities, In-Hospital) OR In-Hospital Mortalities) OR Mortality, In-Hospital) OR hospital mortalities	379267
	#83	Search (((((((((((((((((((((((((Inhospital Mortality) OR Mortality, In Hospital) OR Mortalities, In Hospital) OR Hospital Mortality, In) OR Hospital Mortalities, In) OR In Hospital Mortality) OR Mortalities, Inhospital) OR Inhospital Mortalities) OR In Hospital Mortalities) OR Hospital Mortalities) OR Mortality, Inhospital) OR Mortality, In-house) OR Mortalities, In house) OR In-house Mortality) OR In-house Mortalities) OR Mortalities, In-house) OR Mortalities, Hospital) OR Mortality, Hospital) OR In-Hospital Mortality) OR Mortalities, In-Hospital) OR In-Hospital Mortalities) OR Mortality, In-Hospital) OR hospital mortalities)) AND ((((Diseases, Cardiovascular) OR Disease, Cardiovascular) OR Cardiovascular Disease) OR Cardiovascular Diseases)) AND ((((((((((((((((((((((((((((((Rates, Mortality) OR Rate, Mortality) OR Mortality Rates) OR Mortality Rate) OR Rates, Death) OR Rate, Death) OR Death Rates) OR Death Rate) OR Age Specific Death Rate) OR Rates, Age-Specific Death) OR Rate, Age-Specific Death) OR Death Rates, Age-Specific) OR Death Rate, Age-Specific) OR Age-Specific Death Rates) OR Age-Specific Death Rate) OR Differential Mortality) OR Mortalities, Differential) OR Differential Mortalities) OR Mortality, Differential) OR Determinants, Mortality) OR	222

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Database	No	Step search algorithm	Items found
		Mortality Determinant) OR Determinant, Mortality) OR Mortality Determinants) OR Mortality Decline) OR Mortality Declines) OR Declines, Mortality) OR Decline, Mortality) OR Excess Mortality) OR Mortalities, Excess) OR Excess Mortalities) OR Mortality, Excess) OR Rates, Case Fatality) OR Rate, Case Fatality) OR Case Fatality Rates) OR Case Fatality Rate) OR Mortalities) OR mortality)) AND (((((((((((((Steatohepatitis, Nonalcoholic) OR Steatohepatitides, Nonalcoholic) OR Nonalcoholic Steatohepatitides) OR Nonalcoholic Steatohepatitis) OR Nonalcoholic Fatty Livers) OR Nonalcoholic Fatty Liver) OR Livers, Nonalcoholic Fatty) OR Liver, Nonalcoholic Fatty) OR Fatty Livers, Nonalcoholic) OR Fatty Liver, Nonalcoholic) OR Nonalcoholic Fatty Liver Disease) OR NAFLD) OR Non alcoholic Fatty Liver Disease) OR non-alcoholic fatty liver disease)	
	#84	Search ishemic stroke	19
	#85	Search ischemic stroke	85121
	#86	Search (((((Diseases, Cardiovascular) OR Disease, Cardiovascular) OR Cardiovascular Disease) OR Cardiovascular Diseases)) OR ischemic stroke	2392305
	#87	Search (((((((((Diseases, Cardiovascular) OR Disease, Cardiovascular) OR Cardiovascular Disease) OR Cardiovascular Diseases)) OR ischemic stroke)) AND (((((((((((((((((((((Inhospital Mortality) OR Mortality, In Hospital) OR Mortalities, In Hospital) OR Hospital Mortality, In) OR Hospital Mortalities, In) OR In Hospital Mortality) OR Mortalities, Inhospital) OR Inhospital Mortalities) OR In Hospital Mortalities) OR Hospital Mortalities) OR Mortality, Inhospital) OR Mortality, In-house) OR Mortalities, In house) OR In-house Mortality) OR In-house Mortalities) OR Mortalities, In-house) OR Mortalities, Hospital) OR Mortality, Hospital) OR In-Hospital Mortality) OR Mortalities, In-Hospital) OR In-Hospital Mortalities) OR Mortality, In-Hospital) OR hospital mortalities)) AND ((((((((((((((((((((((((((((((Rates, Mortality) OR Rate, Mortality) OR Mortality Rates) OR Mortality Rate) OR Rates, Death) OR Rate, Death) OR Death Rates) OR Death Rate) OR Age Specific Death Rate) OR Rates, Age-Specific Death) OR Rate, Age-Specific Death) OR Death Rates, Age-Specific) OR Death Rate, Age-Specific) OR Age-Specific Death Rates) OR Age-Specific Death Rate) OR Differential Mortality) OR Mortalities, Differential) OR Differential Mortalities) OR Mortality, Differential) OR Determinants, Mortality) OR Mortality Determinant) OR Determinant, Mortality) OR Mortality Determinants) OR Mortality Decline) OR Mortality Declines) OR Declines, Mortality) OR Decline, Mortality) OR Excess Mortality) OR Mortalities, Excess) OR Excess Mortalities) OR Mortality, Excess) OR Rates, Case Fatality)	**294**

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Database	No	Step search algorithm	Items found
		OR Rate, Case Fatality) OR Case Fatality Rates) OR Case Fatality Rate) OR Mortalities) OR mortality)) AND (((((((((((((Steatohepatitis, Nonalcoholic) OR Steatohepatitides, Nonalcoholic) OR Nonalcoholic Steatohepatitides) OR Nonalcoholic Steatohepatitis) OR Nonalcoholic Fatty Livers) OR Nonalcoholic Fatty Liver) OR Livers, Nonalcoholic Fatty) OR Liver, Nonalcoholic Fatty) OR Fatty Livers, Nonalcoholic) OR Fatty Liver, Nonalcoholic) OR Nonalcoholic Fatty Liver Disease) OR NAFLD) OR Non alcoholic Fatty Liver Disease) OR non-alcoholic fatty liver disease)	
Cochran	#1	("non-alcoholic fatty liver disease") OR ("Non alcoholic Fatty Liver Disease") OR ("NAFLD") OR ("Nonalcoholic Fatty Liver Disease") OR ("Fatty Liver, Nonalcoholic") (Word variations have been searched)	1442
	#2	("Nonalcoholic Steatohepatitis") OR ("Nonalcoholic Steatohepatitides") OR ("Steatohepatitides, Nonalcoholic") OR ("Steatohepatitis, Nonalcoholic") (Word variations have been searched)	1597
	#3	#1 OR #2	609
	#4	("mortality") OR ("Mortalities") OR ("Case Fatality Rate") OR ("Case Fatality Rates") OR ("Rate, Case Fatality") (Word variations have been searched)	72408
	#5	("Rates, Case Fatality") OR ("Mortality, Excess") OR ("Excess Mortalities") OR ("Mortalities, Excess") OR ("Excess Mortality") (Word variations have been searched)	318
	#6	("Rates, Case Fatality") OR ("Mortality, Excess") OR ("Excess Mortalities") OR ("Mortalities, Excess") OR ("Excess Mortality") (Word variations have been searched)	42
	#7	("Decline, Mortality") OR ("Declines, Mortality") OR ("Mortality Declines") OR ("Mortality Decline") OR ("Mortality Determinants") (Word variations have been searched)	50
	#8	("Determinant, Mortality") OR ("Mortality Determinant") OR ("Determinants, Mortality") OR ("Mortality, Differential") OR ("Differential Mortalities") (Word variations have been searched)	21
	#9	("Mortalities, Differential") OR ("Differential Mortality") OR ("Age-Specific Death Rate") OR ("Age-Specific Death Rates") OR ("Death Rate, Age-Specific") (Word variations have been searched)	1215
	#10	("Death Rates, Age-Specific") OR ("Rate, Age-Specific Death") OR ("Rates, Age-Specific Death") OR ("Age Specific Death Rate") OR ("Death Rate") (Word variations have been searched)	9245
	#11	("Death Rates") OR ("Rate, Death") OR ("Rates, Death") OR ("Mortality Rate") OR ("Mortality Rates") (Word variations have been searched)	611

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Database	No	Step search algorithm	Items found
	#12	#4 OR #5 OR #6 OR #7 OR #8 OR #9 OR #10 OR #11	21980
	#13	("Cardiovascular Diseases") OR ("Cardiovascular Disease") OR ("Disease, Cardiovascular") OR ("Diseases, Cardiovascular") (Word variations have been searched)	3564
	#14	("hospital mortalities") OR ("Mortality, In-Hospital") OR ("In-Hospital Mortalities") OR ("Mortalities, In-Hospital") OR ("In-Hospital Mortality") (Word variations have been searched)	897
	#15	("Mortality, Hospital") OR ("Mortalities, Hospital") OR ("Mortalities, In-house") OR ("In-house Mortalities") OR ("In-house Mortality") (Word variations have been searched)	3468
	#16	("Mortalities, In house") OR ("Mortality, In-house") OR ("Mortality, Inhospital") OR ("Hospital Mortalities") OR ("In Hospital Mortalities") (Word variations have been searched)	1643
	#17	("Inhospital Mortalities") OR ("Mortalities, Inhospital") OR ("In Hospital Mortality") OR ("Hospital Mortalities, In") OR ("Hospital Mortality, In") (Word variations have been searched)	1528
	#18	("Mortalities, In Hospital") OR ("Mortality, In Hospital") OR ("Inhospital Mortality") (Word variations have been searched)	4265
	#19	#14 OR #15 OR #16 OR #17 OR #18	11546
	#20	#3 AND #12 AND #13 AND #19	**0**
EMBASE	#1	'cardiovascular disease'/syn	4,160,282
	#2	'stroke'/syn	74,203
	#3	'CVD'/syn	49,164
	#4	#1 OR #2 OR #3	4,238,733
	#5	'nonalcoholic fatty liver'/syn	39,229
	#6	'NAFLD'/syn	21,404
	#7	#5 OR #6	40,545
	#8	'mortality'/syn	1,355,505
	#9	'hospital mortality'/syn	57,385
	#10	#8 OR #9	1,355,505
	#11	#4 AND #7 AND #10	**1,841**