

PUBMED SEARCHES

Is older age a risk factor for hepatotoxicity resulting from treatment with first line drugs used to treat (active and latent?) Mycobacterium tuberculosis (TB)?

Drugs: Isoniazid, rifampin, Pyrazinamide, ethambutol

1970:2012

Age > 60 years

English language

AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt])

NOT (neoplasms[mh] OR cancer[tiab] OR neoplas[tiab])

NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

Tuberculosis/L TBI	Isoniazid	rifampin	pyrazinamide	ethambutol	General Drug
Tuberculosis[mh] “Tuberculosis, Pleural”[mh] “Tuberculosis, Pulmonary”[mh] Latent Tuberculosis[mh] Mycobacterium tuberculosis[mh] "Tuberculosis/ drug therapy"[mh]	Isoniazid[mh]	Rifampin[mh]	Pyrazinamide[mh]	Ethambutol[mh]	Antitubercular Agents[PA] Antibiotics, Antitubercular[[a] Antitubercular Agents/adverse effects[mh]
Tuberculosis[tiab] LTBI[tiab] “pulmonary tuberculosis”[tiab] “active TB”[tiab] “active tuberculosis”[tiab] TB[tiab] “Mycobacteriu	Isoniazid[tiab] INH[tiab] “Isonicotinic Acid Hydrazide”[tiab] Phthivazide[tiab] Ftivazide[tiab] Tubazide[tiab] Isonex[tiab]	Rifampin[tiab] Rif[tiab] Rifampicin[tiab] Benemycin[tiab] Tubocin[tiab] Rimactane[tiab] Rifadin[tiab] Rimactan[tiab]	Pyrazinamide[tiab] PZA[tiab] Tisamid[tiab]	Ethambutol[tiab] EMB[tiab] Myambutol[tiab]	“first line drug”[tiab] OR “first-line drug”[tiab] “initiation therapy”[tiab] “monotherapy”[tiab] “initial phase”[tiab] “continuation phase”[tiab] “combination

m tuberculosis"[tiab] "M. tuberculosis"[tiab] Consumption[tiab] "TB infection"[tiab]					therapy"[tiab] "antituberculosis drug-induced hepatotoxicity"[tiab]
/drug therapy /therapy	/administration and dosage /adverse effects /poisoning /therapeutic use /toxicity	/administration and dosage /adverse effects /poisoning /therapeutic use /toxicity Rifampin"[Substance Name]	/administration and dosage /adverse effects /poisoning /therapeutic use /toxicity	/administration and dosage /adverse effects /poisoning /therapeutic use /toxicity	

Age	hepatotoxicity	infection	treatment	Adverse/tox
Aged[mh] Adult[mh] Age Factors[mh] Age Distribution[mh]	Liver Function Tests[mh] Liver Diseases[mh] Drug-Induced Liver Injury[mh] Liver Diseases/chemically induced[mh] Jaundice[mh]	Infection[mh] Communicable diseases[mh]	"therapeutics"[mh] "drug therapy"[mh] "Drug Therapy, Combination"[mh]	adverse effects [Subheading] "Adverse effect"[tiab] "side effect"[tiab]
Elderly [tiab] Older[tiab] Aged[tiab] Senior[tiab] Geriatric*[tiab] "age reporting"[tiab] "age specific"[tiab] "age-specific"[tiab] "age related"[tiab]	Hepatotoxicity[tiab] Liver Function Test[tiab] LFT[tiab] ALT[tiab] AFT[tiab] "Drug-Induced Hepatitis"[tiab] Jaundice[tiab] Jaundiced[tiab] "liver dysfunction"[tiab]		"polytherapy"[tiab] "Drug combinations"[tiab] Treatment[tiab] Management[tiab] "directly-observed therapy"[tiab] "DOTS"[tiab] "DOTS-plus"[tiab]	"Adverse effect"[tiab] "side effect"[tiab] Poison*[tiab] Toxic*[tiab] "Adverse event"[tiab] "adverse drug event"[tiab] "overdose"
	/statistics and			

	numerical data			
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Tx changes
Treatment Cessation (mh)
“Treatment cessation” (tiab)
“Treatment Interruption” (tiab)
“change in therapy” (tiab)
“change in medication” (tiab)

SEARCH Strategies

Search 1 – TB and hepatotoxicity and age

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR LTBI[tiab]) AND (Hepatotoxicity[tiab] OR Drug-Induced Liver Injury[mh] OR Liver Diseases/chemically induced[mh] OR “drug-induced liver disease”[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp]
YIELD: 201

Added NOT case reports or news as publication types

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR LTBI[tiab]) AND (Hepatotoxicity[tiab] OR Drug-Induced Liver Injury[mh] OR Liver Diseases/chemically induced[mh] OR “drug-induced liver disease”[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt])
YIELD: 192

Added NOT cancer terms

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Hepatotox*[tiab] OR Drug-Induced Liver Injury[mh] OR Liver Diseases/chemically induced[mh] OR “drug-induced liver disease”[tiab] OR “liver diseases”[mh] OR “liver disease”[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab])
YIELD: 1052

Added NOT the hepatitis viruses in titles

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Hepatotox*[tiab] OR Drug-Induced Liver Injury[mh] OR Liver

Diseases/chemically induced[mh] OR "drug-induced liver disease"[tiab] OR "liver diseases"[mh] OR "liver disease"[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])

YIELD: 892

Removed "liver disease"[tiab]

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND (Hepatotox*[tiab] OR Drug-Induced Liver Injury[mh] OR Liver Diseases/chemically induced[mh] OR "drug-induced liver disease"[tiab] OR "liver diseases"[mh]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])

YIELD: 804; Date searched: 11/29/11

Search 2 – Drug Names

INH Search

INH with adverse event subheadings

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND (Isoniazid/adverse effects[mh] OR Isoniazid/poisoning[mh] OR Isoniazid/toxicity[mh]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])

YIELD: 163; Date searched 11/29/11

INH with adverse events concept terms

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND (Isoniazid[tiab] OR INH[tiab]) AND ("adverse effect"[tiab] OR adverse event[tiab] OR "side effect"[tiab] OR toxic*[tiab] OR hepatotox*[tiab] OR treatment failure[mh] OR treatment failure[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])

YIELD: 141; Date searched 11/29/11

RIF Search

RIF with adverse event subheadings

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND (Rifampin/adverse effects[mh] OR Rifampin/poisoning[mh] OR Rifampin/toxicity[mh]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR

Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

YIELD: 110; Date searched 11/29/11

RIF with adverse events concept terms

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Rifampin [tiab] OR Rif[tiab]) AND (“adverse effect”[tiab] OR adverse event[tiab] OR “side effect”[tiab] OR toxic*[tiab] OR hepatotox*[tiab] OR treatment failure[mh] OR treatment failure[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

YIELD: 53; Date searched 11/29/11

PZA Search

PZA with adverse event subheadings

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Pyrazinamide /adverse effects[mh] OR Pyrazinamide /poisoning[mh] OR Pyrazinamide /toxicity[mh]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

YIELD: 34; Date searched 11/29/11

PZA with adverse events concept terms

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Pyrazinamide [tiab] OR PZA [tiab] or Tisamid[tiab]) AND (“adverse effect”[tiab] OR adverse event[tiab] OR “side effect”[tiab] OR toxic*[tiab] OR hepatotox*[tiab] OR treatment failure[mh] OR treatment failure[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

YIELD: 53; Date searched 11/29/11

Ethambutol Search

EMB with adverse event subheadings

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Ethambutol /adverse effects[mh] OR Ethambutol /poisoning[mh] OR Ethambutol /toxicity[mh]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

YIELD: 54; Date searched 11/29/11

EMB with adverse events concept terms

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Ethambutol [tiab] OR EMB [tiab] or Myambutol [tiab]) AND (“adverse effect”[tiab] OR adverse event[tiab] OR “side effect”[tiab] OR toxic*[tiab] OR hepatotox*[tiab] OR treatment failure[mh] OR treatment failure[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

YIELD: 49; Date searched 11/29/11

Search 3 – General Drug Terms

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (Antitubercular Agents[PA] OR Antitubercular Agents/adverse effects[mh] OR “first line drug”[tiab] OR “first-line drug”[tiab] OR “initiation therapy”[tiab] OR “monotherapy”[tiab] OR “initial phase”[tiab] OR “continuation phase”[tiab] OR “combination therapy”[tiab]) AND (“adverse effect”[tiab] OR adverse event[tiab] OR “side effect”[tiab] OR toxic*[tiab] OR hepatotox*[tiab] OR treatment failure[mh] OR treatment failure[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

YIELD: 265; Date searched 11/29/11

Search 4 – Adverse Effects

Adverse Effects w/o age

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (“therapeutics”[mh] OR “drug therapy”[mh] OR “Drug Therapy, Combination”[mh] OR “polytherapy”[tiab] OR “Drug combinations”[tiab] OR “directly-observed therapy”[tiab] OR “DOTS”[tiab] OR “DOTS-plus”[tiab]) AND (adverse effects [Subheading] OR “Adverse effect”[tiab] OR “side effect”[tiab] OR Poison*[tiab] OR Toxic*[tiab] OR “Adverse event”[tiab] OR “adverse drug event”[tiab]) AND (Liver Function Tests [mh] OR Drug-Induced Liver Injury[mh] OR Hepatotoxicity[tiab] OR Liver Function Test[tiab] OR LFT[tiab] OR ALT[tiab] OR AFT[tiab] OR “Drug-Induced Hepatitis”[tiab] OR Jaundice[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT (“hepatitis A”[ti] OR “hepatitis B”[ti] OR “hepatitis C”[ti] OR “hepatitis E”[ti])

Yield: 261; Date searched 11/29/11

Adverse Effects w/age

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR “latent tuberculosis”[tiab] OR consumption[tiab]) AND (“therapeutics”[mh] OR “drug therapy”[mh] OR “Drug Therapy, Combination”[mh] OR “polytherapy”[tiab] OR “Drug combinations”[tiab] OR “directly-observed therapy”[tiab] OR “DOTS”[tiab] OR “DOTS-plus”[tiab]) AND (adverse effects [Subheading] OR “Adverse

effect"[tiab] OR "side effect"[tiab] OR Poison*[tiab] OR Toxic*[tiab] OR "Adverse event"[tiab] OR "adverse drug event"[tiab]) AND (Liver Function Tests [mh] OR Drug-Induced Liver Injury[mh] OR Hepatotoxicity[tiab] OR Liver Function Test[tiab] OR LFT[tiab] OR ALT[tiab] OR AFT[tiab] OR "Drug-Induced Hepatitis"[tiab] OR Jaundice[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])

Yield: 70; Date searched 11/29/11

Adverse Effects w/age and General Drug Terms

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND ("therapeutics"[mh] OR "drug therapy"[mh] OR "Drug Therapy, Combination"[mh] OR "polytherapy"[tiab] OR "Drug combinations"[tiab] OR "directly-observed therapy"[tiab] OR "DOTS"[tiab] OR "DOTS-plus"[tiab]) AND (adverse effects [Subheading] OR "Adverse effect"[tiab] OR "side effect"[tiab] OR Poison*[tiab] OR Toxic*[tiab] OR "Adverse event"[tiab] OR "adverse drug event"[tiab]) AND (Liver Function Tests [mh] OR Drug-Induced Liver Injury[mh] OR Hepatotoxicity[tiab] OR Liver Function Test[tiab] OR LFT[tiab] OR ALT[tiab] OR AFT[tiab] OR "Drug-Induced Hepatitis"[tiab] OR Jaundice[tiab]) AND (Antitubercular Agents[PA] OR Antitubercular Agents/adverse effects[mh] OR "first line drug"[tiab] OR "first-line drug"[tiab] OR "initiation therapy"[tiab] OR "monotherapy"[tiab] OR "initial phase"[tiab] OR "continuation phase"[tiab] OR "combination therapy"[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])

Yield: 54; Date searched 11/29/11

Adverse effects with liver transplant and age

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND ("therapeutics"[mh] OR "drug therapy"[mh] OR "Drug Therapy, Combination"[mh] OR "polytherapy"[tiab] OR "Drug combinations"[tiab] OR "directly-observed therapy"[tiab] OR "DOTS"[tiab] OR "DOTS-plus"[tiab]) AND (adverse effects [Subheading] OR "Adverse effect"[tiab] OR "side effect"[tiab] OR Poison*[tiab] OR Toxic*[tiab] OR "Adverse event"[tiab] OR "adverse drug event"[tiab]) AND (Liver Function Tests [mh] OR "Liver Tansplant" [tiab] OR Liver Transplantation [mh] OR Liver Failure, Acute [mh] OR Drug-Induced Liver Injury[mh] OR Hepatotoxicity[tiab] OR Liver Function Test[tiab] OR LFT[tiab] OR ALT[tiab] OR AFT[tiab] OR "Drug-Induced Hepatitis"[tiab] OR Jaundice[tiab]) AND (Antitubercular Agents[PA] OR Antitubercular Agents/adverse effects[mh] OR "first line drug"[tiab] OR "first-line drug"[tiab] OR "initiation therapy"[tiab] OR "monotherapy"[tiab] OR "initial phase"[tiab] OR "continuation phase"[tiab] OR "combination therapy"[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])

Yield: 55; Date searched 11/29/11

Adverse effects with liver transplant and age w/o therapeutics

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND (adverse effects [Subheading] OR "Adverse effect"[tiab] OR "side effect"[tiab] OR Poison*[tiab] OR Toxic*[tiab] OR "Adverse event"[tiab] OR "adverse drug event"[tiab]) AND (Liver Function Tests [mh] OR "Liver Tansplant" [tiab] OR Liver Transplantation [mh] OR Liver Failure, Acute [mh] OR Drug-Induced Liver Injury[mh] OR Hepatotoxicity[tiab] OR Liver Function Test[tiab] OR LFT[tiab] OR ALT[tiab] OR AFT[tiab] OR "Drug-Induced Hepatitis"[tiab] OR Jaundice[tiab]) AND (Antitubercular Agents[PA] OR Antitubercular Agents/adverse effects[mh] OR "first line drug"[tiab] OR "first-line drug"[tiab] OR "initiation therapy"[tiab] OR "monotherapy"[tiab] OR "initial phase"[tiab] OR "continuation phase"[tiab] OR "combination therapy"[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])
Yield: 171; Date searched 11/29/11

Search 5: Change in Therapy

Change in Therapy w/o age

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND (Treatment Cessation [mh] OR "treatment adjustment"[tiab] OR "treatment modification"[tiab] OR "Treatment cessation" [tiab] OR "Treatment Interruption" [tiab] OR "change in medication" [tiab]) AND (Antitubercular Agents[PA] OR Antitubercular Agents/adverse effects[mh] OR "first line drug"[tiab] OR "first-line drug"[tiab] OR "initiation therapy"[tiab] OR "monotherapy"[tiab] OR "initial phase"[tiab] OR "continuation phase"[tiab] OR "combination therapy"[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])
Yield: 28; Date searched 11/29/11

Change in Therapy w/age

(Tuberculosis[mh] OR tuberculosis[tiab] OR TB[tiab] OR "latent tuberculosis"[tiab] OR consumption[tiab]) AND (Treatment Cessation [mh] OR "treatment adjustment"[tiab] OR "treatment modification"[tiab] OR "Treatment cessation" [tiab] OR "Treatment Interruption" [tiab] OR "change in medication" [tiab]) AND (Antitubercular Agents[PA] OR Antitubercular Agents/adverse effects[mh] OR "first line drug"[tiab] OR "first-line drug"[tiab] OR "initiation therapy"[tiab] OR "monotherapy"[tiab] OR "initial phase"[tiab] OR "continuation phase"[tiab] OR "combination therapy"[tiab]) AND (aged[mh] OR age factors[mh] OR Elderly [tiab] OR Older[tiab] OR Aged[tiab] OR Senior[tiab] OR Geriatric*[tiab]) AND English[la] AND 1970:2012[dp] NOT (case reports[pt] OR news[pt]) NOT (neoplasms[mh] OR cancer[tiab] OR neoplas*[tiab]) NOT ("hepatitis A"[ti] OR "hepatitis B"[ti] OR "hepatitis C"[ti] OR "hepatitis E"[ti])
Yield: 8

Search and Yield Numbers

- Total of all yields: 1810
- Final yield: 1291
- Number of duplicates removed: 519

CINAHL SEARCHES

Is older age a risk factor for hepatotoxicity resulting from treatment with first line drugs used to treat (active and latent?) Mycobacterium tuberculosis (TB)?

Drugs: Isoniazid, rifampin, Pyrazinamide, ethambutol

1970:2012

Age > 60 years

English language

Limits (select on Limits page = advanced search): English language, peer-reviewed, exclude MEDLINE records, age groups: middle-aged, aged, 65+ aged, 80+, dates: January 1970 to December 2011

Tuberculosis/LTBI (MH "Tuberculosis, Pulmonary") (MH "Mycobacterium Tuberculosis")	Isoniazid (MH "Isoniazid")	rifampin (MH "Rifampin") OR rifampin OR Rif OR Rifamycin OR Rifapentine OR Rifabutine	pyrazinamide (MH "Pyrazinamide")	ethambutol	General Drug (MH "Antitubercular Agents")
Tuberculosis LTBI "latent tuberculosis" consumption	Isoniazid INH "Isonicotinic Acid Hydrazide" Phthivazide Ftivazide Tubazide Isonex	OR rifampin OR Rif OR Rifamycin OR Rifapentine OR Rifabutine	Pyrazinamide PZA Tisamid	Ethambutol EMB Myambutol	"first line drug" OR "first-line drug" "initiation therapy" "monotherapy" "initial phase" "continuation phase" "combination therapy" "antituberculosis drug-induced hepatotoxicity"

Age	hepatotoxicity
(use limits)	(MH "Hepatotoxicity")
Elderly Older Aged Senior Geriatric* "age reporting" "age specific"	hepatotoxicity

"age-specific"	
"age related"	

(MH "Tuberculosis, Pulmonary") OR (MH "Mycobacterium Tuberculosis")

(MH "Isoniazid") OR Isoniazid OR INH OR (MH "Pyrazinamide") OR Pyrazinamide OR PZA OR Tisamid OR (MH "Rifampin") OR rifampin OR Rif OR Rifamycin OR Rifapentine OR Rifabutine OR ethambutol OR myambutol

(MH "Hepatotoxicity") OR hepatotoxicity

Searched "tuberculosis (in all txt)" and "hepatotoxicity (in all txt)" (English Language, Peer Reviewed)

Results: 37 searched on 1/17/12

CINHAL Search and Yield Numbers (1 kept)

- Total of all yields: 37
- Final yield: 37
- Number of duplicates removed: 0

Web of Science

("Pulmonary Tuberculosis" OR "Mycobacterium Tuberculosis" OR "latent tuberculosis" OR TB OR LTBI) AND hepatotoxicity

("Pulmonary Tuberculosis" OR "Mycobacterium Tuberculosis" OR "latent tuberculosis" OR TB OR LTBI) AND (isoniazid OR rifampin OR pyrazinamide OR ethambutol) AND hepatotoxicity

Topic=("Pulmonary Tuberculosis" OR "Mycobacterium Tuberculosis" OR "latent tuberculosis" OR TB OR LTBI) AND hepatotoxicity

Refined by: Languages=(ENGLISH) AND Document Type=(ARTICLE OR REVIEW)

Timespan=1970-2011. Databases=SCI-EXPANDED, SSCI, A&HCI, BKCI-S, BKCI-SSH.

Lemmatization=On

Result: 291 searched on 12/23/11

Topic=("Pulmonary Tuberculosis" OR "Mycobacterium Tuberculosis" OR "latent tuberculosis" OR TB OR LTBI) AND (isoniazid OR rifampin OR pyrazinamide OR ethambutol) AND hepatotoxicity

Refined by: Languages=(ENGLISH) AND Document Type=(ARTICLE OR REVIEW)

Timespan=1970-2011. Databases=SCI-EXPANDED, SSCI, A&HCI, BKCI-S, BKCI-SSH.

Lemmatization=On

Result: 220 searched on 12/23/11

Search and Yield Numbers (147 kept)

- Total of all yields: 291
- Final yield: 291
- Number of duplicates removed: 0

Cochrane Controlled Trials

("Pulmonary Tuberculosis" OR "Mycobacterium Tuberculosis" OR "latent tuberculosis" OR TB OR LTBI)
AND hepatotoxicity

Result: 31 searched on 12/23/11

("Pulmonary Tuberculosis" OR "Mycobacterium Tuberculosis" OR "latent tuberculosis" OR TB OR LTBI)
AND (isoniazid OR rifampin OR pyrazinamide OR ethambutol) AND hepatotoxicity

Result: 240 searched on 1/17/11

Search and Yield Numbers

- Total of all yields: 240
- Final yield: 233
- Number of duplicates removed: 7

Cochrane Systematic Reviews

("Pulmonary Tuberculosis" OR "Mycobacterium Tuberculosis" OR "latent tuberculosis" OR TB OR LTBI)
AND hepatotoxicity

7 found, none selected searched on 12/21/11

(252)

Grey Literature Search Results

Google Scholar

tuberculosis and hepatotoxicity -cancer -or –acetaminophen (anywhere in the article)

1970-2012

Searched only in: Biology, Life Sciences, and Environmental Science, Medicine, Pharmacology, and Veterinary Science, and Chemistry and Materials Science

Results: 183

When all area subjects are selected:

Results: 189