mathematical model\*[Title/Abstract] AND (antibiotic\*[Title/Abstract] OR antimicrobial\*[Title/Abstract] OR drug-resistan\*[Title/Abstract] OR resistan\*[Title/Abstract]) NOT (malaria[Title/Abstract] OR virus[Title/Abstract] OR HIV[Title/Abstract] OR cancer[Title/Abstract] OR tumor[Title/Abstract] OR tumour[Title/Abstract] OR animal[Title/Abstract])

**PubMed**

(((mathematic\*[Title/Abstract] OR simulation[Title/Abstract] OR determinist\*[Title/Abstract] OR stochast\*[Title/Abstract] OR compartment\*[Title/Abstract]) AND model\*[Title/Abstract])

OR (risk analysis[Title/Abstract] OR risk assessment[Title/Abstract] OR hazard assessment[Title/Abstract] OR cost benefit[Title/Abstract] OR risk model[Title/Abstract] OR exposure assessment[Title/Abstract] OR risk management[Title/Abstract]))

AND (((antimicrobial[Title/Abstract] OR drug[Title/Abstract] OR antibiotic[Title/Abstract] OR microbial drug[Title/Abstract] OR multi-drug[Title/Abstract] OR methicillin[Title/Abstract] OR vancomycin[Title/Abstract] OR clarithromycin[Title/Abstract] OR fluoroquinolone[Title/Abstract] OR cephalosporin[Title/Abstract] OR ampicillin[Title/Abstract] OR penicillin[Title/Abstract]) AND resis\*[Title/Abstract]) OR extended-spectrum\*[Title/Abstract])

NOT (malaria[Title/Abstract] OR virus[Title/Abstract] OR HIV[Title/Abstract] OR cancer[Title/Abstract] OR tumor[Title/Abstract] OR tumour[Title/Abstract])

**WoS**

(TS=((((mathematic\* OR simulation OR determinist\* OR stochast\* OR compartment\*) AND model\*) OR (risk analysis OR risk assessment OR hazard assessment OR cost benefit OR risk model OR exposure assessment OR risk management)) AND (((antimicrobial OR drug OR antibiotic OR microbial drug OR multi-drug OR methicillin OR vancomycin OR clarithromycin OR fluoroquinolone OR cephalosporin OR ampicillin OR penicillin) AND resis\*) OR extended-spectrum\*) NOT (malaria OR virus OR HIV OR cancer OR tumor OR tumour))) *AND***LANGUAGE:** (English)

**Refined by:** [excluding] **WEB OF SCIENCE CATEGORIES:** ( DENTISTRY ORAL SURGERY MEDICINE OR TROPICAL MEDICINE OR OTORHINOLARYNGOLOGY OR GENETICS HEREDITY OR ENGINEERING CHEMICAL OR DERMATOLOGY OR BEHAVIORAL SCIENCES OR BIOPHYSICS OR IMMUNOLOGY OR ORTHOPEDICS OR MARINE FRESHWATER BIOLOGY OR BIOCHEMICAL RESEARCH METHODS OR PHYSIOLOGY OR SURGERY OR MEDICAL LABORATORY TECHNOLOGY OR RADIOLOGY NUCLEAR MEDICINE MEDICAL IMAGING OR BIOCHEMISTRY MOLECULAR BIOLOGY OR CELL BIOLOGY OR CARDIAC CARDIOVASCULAR SYSTEMS OR GERIATRICS GERONTOLOGY OR GERONTOLOGY OR CLINICAL NEUROLOGY OR EMERGENCY MEDICINE OR PEDIATRICS OR RESPIRATORY SYSTEM OR OBSTETRICS GYNECOLOGY OR SPORT SCIENCES OR PATHOLOGY OR STATISTICS PROBABILITY OR PLANT SCIENCES OR CRITICAL CARE MEDICINE OR CHEMISTRY ANALYTICAL OR FISHERIES OR ENDOCRINOLOGY METABOLISM OR PSYCHOLOGY OR OPHTHALMOLOGY OR CHEMISTRY APPLIED OR PERIPHERAL VASCULAR DISEASE OR ANESTHESIOLOGY OR MYCOLOGY OR TOXICOLOGY OR CHEMISTRY PHYSICAL OR SOCIAL SCIENCES BIOMEDICAL OR PSYCHIATRY OR NUTRITION DIETETICS OR GASTROENTEROLOGY HEPATOLOGY OR RHEUMATOLOGY OR POLYMER SCIENCE OR UROLOGY NEPHROLOGY OR CHEMISTRY ORGANIC OR NEUROSCIENCES OR SUBSTANCE ABUSE OR COMPUTER SCIENCE INFORMATION SYSTEMS OR HEMATOLOGY OR MEDICINE LEGAL OR SOCIAL SCIENCES MATHEMATICAL METHODS OR CHEMISTRY MULTIDISCIPLINARY OR VIROLOGY OR ENGINEERING ELECTRICAL ELECTRONIC OR ONCOLOGY OR NURSING OR PHYSICS MULTIDISCIPLINARY OR CHEMISTRY MEDICINAL OR PSYCHOLOGY CLINICAL OR REHABILITATION OR TRANSPLANTATION OR ENERGY FUELS OR NANOSCIENCE NANOTECHNOLOGY OR ENTOMOLOGY OR PARASITOLOGY )

**Timespan:** All years. **Indexes:** SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC.

**PubMed**

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OR (risk analysis[Title/Abstract] OR risk assessment[Title/Abstract] OR hazard assessment[Title/Abstract] OR cost benefit[Title/Abstract] OR risk model[Title/Abstract] OR exposure assessment[Title/Abstract] OR risk management[Title/Abstract]))

AND (((antimicrobial[Title/Abstract] OR drug[Title/Abstract] OR antibiotic[Title/Abstract] OR microbial drug[Title/Abstract] OR multi-drug[Title/Abstract] OR penicillin[Title/Abstract] OR amoxicillin[Title/Abstract] OR flucloxacillin[Title/Abstract] OR co-amoxiclav[Title/Abstract] OR cephalosporins[Title/Abstract] OR cephalexin[Title/Abstract] OR cefuroxime[Title/Abstract] OR ceftriaxone[Title/Abstract] OR tetracycline[Title/Abstract ] OR doxycycline[Title/Abstract] OR lymecycline[Title/Abstract] OR oxytetracycline[Title/Abstract] OR quinolones[Title/Abstract] OR ciprofloxacin[Title/Abstract] OR levofloxacin[Title/Abstract] OR ofloxacin[Title/Abstract] OR macrolides[Title/Abstract] OR clarithromycin[Title/Abstract] OR erythromycin[Title/Abstract] OR azithromycin[Title/Abstract] OR telithromycin[Title/Abstract] OR nitrofurantoin[Title/Abstract] OR aminoglycosides[Title/Abstract] OR glycopeptide[Title/Abstract] OR daptomycin[Title/Abstract] OR vancomycin[Title/Abstract] OR teicoplanin[Title/Abstract] OR colistin[Title/Abstract] OR methicillin[Title/Abstract] OR carbapenem[Title/Abstract] OR meropenem[Title/Abstract] OR ertapenem[Title/Abstract] OR imipenem-cilastin[Title/Abstract]) AND resis\*[Title/Abstract]) OR extended-spectrum\*[Title/Abstract])

NOT (malaria[Title/Abstract] OR virus[Title/Abstract] OR HIV[Title/Abstract] OR cancer[Title/Abstract] OR tumor[Title/Abstract] OR tumour[Title/Abstract])

English Surveillance Programme for Antimicrobial Utilisation and Resistance (ESPUAR) – Report 2018

* Penicillin[Title/Abstract]
* Amoxicillin[Title/Abstract]
* Flucloxacillin[Title/Abstract]
* Co-amoxiclav[Title/Abstract]
* Cephalosporins[Title/Abstract]
* Cephalexin[Title/Abstract]
* Cefuroxime[Title/Abstract]
* Ceftriaxone[Title/Abstract]
* Tetracycline[Title/Abstract]
* Doxycycline[Title/Abstract]
* Lymecycline[Title/Abstract]
* Oxytetracycline[Title/Abstract]
* Quinolones[Title/Abstract]
* Ciprofloxacin[Title/Abstract]
* Levofloxacin[Title/Abstract]
* Ofloxacin[Title/Abstract]
* Macrolides[Title/Abstract]
* Clarithromycin[Title/Abstract]
* Erythromycin[Title/Abstract]
* Azithromycin[Title/Abstract]
* Telithromycin[Title/Abstract]
* Nitrofurantoin[Title/Abstract]
* Aminoglycosides[Title/Abstract]
* Glycopeptide[Title/Abstract]
* Daptomycin[Title/Abstract]
* Vancomycin[Title/Abstract]
* Teicoplanin[Title/Abstract]
* Colistin[Title/Abstract]
* Methicillin[Title/Abstract]
* Carbapenem[Title/Abstract]
* Meropenem[Title/Abstract]
* Ertapenem[Title/Abstract]
* Imipenem-Cilastin[Title/Abstract]

**WoS**

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*AND***LANGUAGE:** (English)

**Refined by:** [excluding] **WEB OF SCIENCE CATEGORIES:** (

DENTISTRY ORAL SURGERY MEDICINE

TROPICAL MEDICINE

OTORHINOLARYNGOLOGY

GENETICS HEREDITY

ENGINEERING CHEMICAL

DERMATOLOGY

BEHAVIORAL SCIENCES

BIOPHYSICS

IMMUNOLOGY

ORTHOPEDICS

MARINE FRESHWATER BIOLOGY

BIOCHEMICAL RESEARCH METHODS

PHYSIOLOGY

SURGERY

MEDICAL LABORATORY TECHNOLOGY

RADIOLOGY NUCLEAR MEDICINE MEDICAL IMAGING

BIOCHEMISTRY MOLECULAR BIOLOGY

CELL BIOLOGY

CARDIAC CARDIOVASCULAR SYSTEMS

GERIATRICS GERONTOLOGY

GERONTOLOGY

CLINICAL NEUROLOGY

EMERGENCY MEDICINE

PEDIATRICS

RESPIRATORY SYSTEM

OBSTETRICS GYNECOLOGY

SPORT SCIENCES

PATHOLOGY

STATISTICS PROBABILITY

PLANT SCIENCES

CRITICAL CARE MEDICINE

CHEMISTRY ANALYTICAL

FISHERIES

ENDOCRINOLOGY METABOLISM

PSYCHOLOGY

OPHTHALMOLOGY

CHEMISTRY APPLIED

PERIPHERAL VASCULAR DISEASE

ANESTHESIOLOGY

MYCOLOGY

TOXICOLOGY

CHEMISTRY PHYSICAL

SOCIAL SCIENCES BIOMEDICAL

PSYCHIATRY

NUTRITION DIETETICS

GASTROENTEROLOGY HEPATOLOGY

RHEUMATOLOGY

POLYMER SCIENCE

UROLOGY NEPHROLOGY

CHEMISTRY ORGANIC

NEUROSCIENCES

SUBSTANCE ABUSE

COMPUTER SCIENCE INFORMATION SYSTEMS

HEMATOLOGY

MEDICINE LEGAL

SOCIAL SCIENCES MATHEMATICAL METHODS

CHEMISTRY MULTIDISCIPLINARY

VIROLOGY

ENGINEERING ELECTRICAL ELECTRONIC

ONCOLOGY

NURSING

PHYSICS MULTIDISCIPLINARY

CHEMISTRY MEDICINAL

PSYCHOLOGY CLINICAL

REHABILITATION

TRANSPLANTATION

ENERGY FUELS

NANOSCIENCE NANOTECHNOLOGY

ENTOMOLOGY

PARASITOLOGY )

**Timespan:** All years. **Indexes:** SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI, CCR-EXPANDED, IC.

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