Bibliography: PubMed (Title/abstract)

Search string:

1. ((Poultry) OR (Chicken) OR (fowl) OR(domesticated birds) OR(domestic fowls) OR(poultries)OR (broilers) OR(chickens)OR (pig) OR(fattening pig) OR(livestock) OR(food-producing animal) OR(meat-producing animal) OR(veal calve)OR(cow) OR(beef)OR(fish)OR(swine))
2. ((Prevalence)OR(Point prevalence))
3. ((Drug resistance)OR(ESBL)OR(Colistin resistance)OR(Polymyxins resistance)

OR(Antibiotic resistance)OR(Mcr-1)OR(Beta-lactamase)OR(Carbapenems resistance)OR(Antimicrobial resistance)OR(OXA)OR(NDM)OR(GES)OR(OXA)OR

(MCR1)OR(carriage))

1. ((Poultry) OR (Chicken) OR(broilers) OR (pig) OR(fattening pig) OR(livestock) OR(food-producing animal) OR(meat-producing animal) OR(veal calve)OR(cow) OR(beef)OR(fish)OR(swine))
2. ((ESBL)OR (Beta-lactamase)OR(Extended Beta-lactamase resistance) OR(TEM) OR(OXA) OR (SHV) OR (CTX))

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Search | Search strings | Hits per bibliography | | | Validation score |
|  |  | **PubMed** |  |  |  |
| 1 | I & II & III | 6666 |  |  |  |
| 2 | I&II&IV | 176 |  |  |  |
| 3 | II&IV&V | 1175 |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |
| 7 |  |  |  |  |  |

\* Proportion of raw chicken consumption

before inclusion criteria : 70+

Inclusion criteria

* ESBL, Colistin, Polymyxins, mcr-1 mentioned
* Disc diffusion method

|  |  |  |  |
| --- | --- | --- | --- |
| Population | Intervention | Outcome | Location |
| Poultry  Chicken  fowl  domesticated birds  domestic fowls  poultries  chickens | Without heat  raw  uncooked  inadequate cooking  handling  farmers | ESBL  Colistin resistance  polymyxins  Antibiotic resistance  Mcr-1  Beta-lactamase | Consumption  Eat  Consume |

\*association of raw chicken to AMR in human

before including outcome: 85

## 8 results ## => 5 usable => extract parameters

EU 3, Africa 1, Nepal 1

Result

* Randall, 2017

Search: Quantitative risk factor of food consumption & preparation of ESBL, Colistin resistance and Carbapenem resistance

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Exposure | Exposure2 | Outcome | Outcome2 | Population |
| Consuming | **raw poultry meat** | Intestinal carriage | Antibiotic resistance | Residents |
| Consume | **chicken meat** | Carriage | Carbapenmase | Community |
| Expose | **raw egg** | Colonized | Beta lactamase | Healthy people |
| Preparation | **poultries** | Fecal carriage | ESBL | Community residents |
| Handling | Foods animal | Urinary tract infection | Extended-spectrum B-lactamase | Humans |
| Cooking | broilers | Intestinal colonization | Antimicrobial resistance | Healthy individuals |
| Prepare |  | colonization | CTX | Population |
| consumption |  | Infection | NDM | Healthy subjects |
|  |  | Stool specimen | MCR-1 |  |
|  |  | Risk factors | Carbapenem resistance |  |
|  |  | Prevalence | Colistin resistance |  |
|  |  | Fecal colonizing |  |  |
|  |  | transmission |  |  |
|  |  |  |  |  |
|  |  | dissemination |  |  |
|  |  | distribution |  |  |

((((((((((((consuming) OR consume) OR expose) OR preparation) OR handling) OR cooking) OR prepare) AND all[sb])) AND ((((((raw poultry meat) OR chicken meat) OR poultries) OR foods animal) OR broiler) AND all[sb])) AND (((((((((((((((intestinal carriage) OR carriage) OR colonized) OR fecal carriage) OR urinary tract infection) OR colonization) OR infection) OR stool specimen) OR risk factors) OR prevalence) OR fecal colonizing) OR transmission) OR dissemination) OR distribution) AND all[sb])) AND (((((((((((antibiotic resistance) OR carbapenemase) OR carbapenem resistance) OR colistin resistance) OR ESBL) OR Extended-spectrum B-lactamase) OR antimicrobial resistance) OR ctx) OR ndm) OR mcr-1) AND all[sb])) AND (((((((((residents) OR community) OR healthy people) OR community residents) OR humans) OR healthy individuals) OR population) OR healthy subjects) AND all[sb])

|  |  |  |  |
| --- | --- | --- | --- |
| Risk factor | Resistance pattern | Exposure | Community |
| Risk factors | Antibiotic resistance | Meat consumption | Community |
| Cause | Carbapenemase | Consumption of meat | Healthy residents |
| Risk | Beta lactamase | Consuming | Healthy individuals |
| Causal | ESBL | Process | population |
| Risk factor | Extended-spectrum B-lactamase | Processing | adult |
|  | Antimicrobial resistance | Handle |  |
|  | CTX | Preparation |  |
|  | NDM | Cooking |  |
|  | MCR-1 | Handling |  |
|  | Carbapenem resistance | consume |  |
|  | Colistin resistance |  |  |
|  |  |  |  |

(((((risk factors) OR risk) OR causal) OR cause)) AND ((((((((((antibiotic resistance) OR carbapenemase) OR beta lactamase) OR ESBLs) OR extended-spectrum B lactamase) OR CTX) OR NDM) OR MCR1) OR carbapenem resistance) OR colistin resistance) AND (((((community)OR healthy residents)OR healthy individuals) OR population) OR adult) AND (((((((((meat consumption) OR consumption of meat) OR consuming) OR process)OR handle) OR preparation) OR cooking)OR handling)OR consume)

387 search result

|  |  |  |  |
| --- | --- | --- | --- |
|  | Resistance pattern | Prevalence | Population |
|  | Antibiotic resistance |  | Community |
|  | Carbapenemase |  | Healthy residents |
|  | Beta lactamase |  | Healthy individuals |
|  | ESBL |  | population |
|  | Extended-spectrum B-lactamase |  | adult |
|  | Antimicrobial resistance |  | Human |
|  | CTX |  | Individual |
|  | NDM |  | Intestinal carriage |
|  | MCR-1 |  |  |
|  | Carbapenem resistance |  |  |
|  | Colistin resistance |  |  |
|  |  |  |  |