|  |  |
| --- | --- |
| Logo AGES | |
| Paratuberculosis | |
|  |  |
| 24.11.2024 13:19 Uhr | |

**Paratuberculosis**

**Mycobacterium
avium
subspecies
paratuberculosis
(MAP)**

Last
change:
10.10.2023

**Profile**

Paratuberculosis
is
a
chronic
and
incurable
intestinal
infection
of
ruminants.

**Occurrence**

Worldwide,
with
regions
with
intensive
ruminant
farming
being
particularly
affected

**Host
animals**

Domestic
ruminants
(e.g.
cattle,
sheep,
goats),
wild
ruminants
(e.g.
deer),
ruminants
in
zoos

**Infection
route**

Infection
occurs
mainly
as
a
young
animal
via
pathogen-containing
faeces,
faeces-contaminated
milk
and
teats
as
well
as
colostrum.

**Incubation
time**

2
to
10
years

**Symptoms**

Clinical
symptoms
develop
after
an
incubation
period
of
many
years
in
some
of
the
infected
animals
and
are
manifested
by
insatiable
diarrhoea
with
a
preserved
desire
to
eat.
The
faeces
are
foamy
and
interspersed
with
gas
bubbles.
Other
symptoms
are
severe
emaciation
and
a
decrease
in
milk
yield.
In
the
small
ruminant,
emaciation
is
often
the
only
symptom.
The
disease
inevitably
leads
to
the
death
of
the
affected
animals.

**Therapy**

Paratuberculosis
is
incurable

**Prevention**

One
vaccine
is
not
licensed
in
Austria

**Situation
in
Austria**

In
Austria,
since
April
2006,
there
has
been
a
notification
requirement
for
the
clinical
form
of
paratuberculosis
in
cattle,
sheep
and
goats
as
well
as
wild
ruminants
kept
in
gates.
The
aim
of
this
surveillance
programme
is
to
identify
animals
clinically
affected
by
paratuberculosis
and
to
remove
them
from
the
herds.
Furthermore,
after
laboratory
confirmation,
targeted
hygiene
and
management
measures
are
taken
to
reduce
the
infection
pressure
in
the
affected
herds.

**Number
of
cattle
or
farms
suspected
of
paratuberculosis
and
tested
positive
by
means
of
antibody
and/or
pathogen
detection
as
well
as
holdings**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Jahr** | **cattle** | **positive** | **farms** | **positive** |
| **2010** | 82 | 61 | 34 | 25 |
| **2011** | 113 | 57 | 62 | 29 |
| **2012** | 102 | 65 | 46 | 28 |
| **2013** | 75 | 49 | 26 | 19 |
| **2014** | 66 | 50 | 28 | 23 |
| **2015** | 104 | 66 | 35 | 28 |
| **2016** | 134 | 60 | 29 | 26 |
| **2017** | 52 | 50 | 14 | 14 |
| **2018** | 45 | 36 | 12 | 10 |
| **2019** | 52 | 43 | 15 | 13 |
| **2020** | 56 | 16 | 48 | 14 |
| **2021** | 51 | 17 | 44 | 15 |
| **2022** | 18 | 5 | 18 | 5 |
| **2023** | 46 | 12 | 42 | 10 |

**Number
of
goats,
sheep
and
creel
game
suspected
of
having
paratuberculosis
and
tested
positive
by
means
of
antibody
and/or
pathogen
detection
as
well
as
holdings**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Jahr** | **goats** | **positive** | **farms** | **positive** | **sheep** | **positive** | **farms** | **positive** | **creel deer** | **positive** | **farms** | **positive** |
| **2010** | 6 | 6 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 1 | 3 | 1 |
| **2011** | 7 | 2 | 5 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| **2012** | 97 | 1 | 2 | 1 | 0 | 0 | 0 | 0 | 4 | 4 | 2 | 2 |
| **2013** | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 1 | 3 | 1 |
| **2014** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 0 |
| **2015** | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 6 | 3 | 3 | 2 |
| **2016** | 22 | 14 | 3 | 2 | 4 | 2 | 1 | 1 | 5 | 0 | 5 | 0 |
| **2017** | 14 | 2 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| **2018** | 5 | 3 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **2019** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **2020** | 64 | 38 | 6 | 4 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| **2021** | 68 | 64 | 6 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **2022** | 10 | 1 | 5 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| **2023** | 4 | 2 | 4 | 2 | 3 | 1 | 2 | 1 | 0 | 0 | 0 | 0 |

**Technical
information**

Infection
occurs
predominantly
in
the
first
months
of
life.
Young
animals
are
the
most
susceptible;
infection
often
occurs
directly
after
birth
via
pathogen-containing
faeces,
faeces-contaminated
milk
and
teats
as
well
as
colostrum.

MAP
control
is
made
considerably
more
difficult
by
various
factors.
While
the
laboratory
diagnosis
of
an
infection
in
clinically
ill
animals
is
usually
not
difficult,
early
stages
of
infection
are
often
difficult
to
detect
due
to
the
long
incubation
period,
the
intermittent
excretion
of
the
pathogen
and
the
relatively
late
seroconversion.
However,
since
it
is
the
clinically
ill
animals
that
are
most
important
in
the
spread
of
MAP
because
of
the
high
excretion
of
the
pathogen,
the
surveillance
and
control
programme
is
aimed
primarily
at
the
detection
and
eradication
of
animals
clinically
ill
with
paratuberculosis.
If
the
actual
existence
of
clinical
paratuberculosis
is
detected
and
confirmed,
additional
targeted
hygiene
and
management
measures
to
reduce
the
infection
pressure
in
the
affected
herds
shall
follow
the
culling
of
the
affected
animals.

**Diagnostic**

Based
on
the
clinic,
only
a
tentative
diagnosis
can
be
made,
which
must
be
verified
by
further
laboratory
diagnostics.

The
following
laboratory
diagnostic
methods
are
used:

* Pathogen
  detection:
  bacteriological
  culture
  test
  and
  PCR.
* Detection
  of
  MAP-specific
  antibodies:
  ELISA

For
the
diagnostic
clarification
of
clinical
suspect
cases,
blood
and
faeces
samples
must
be
sent
in
by
the
official
veterinarian.
In
the
case
of
dead
or
killed
animals,
organ
material
(intestinal
parts,
lymph
nodes)
is
to
be
sent
in.

**Contact**

**National
reference
laboratory
for
paratuberculosis**

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