Echinococcosi cistica

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EC

- **Negletta**
- **Cronica**
- **Clinicamente complessa**

Estimated burden of disease (underreporting accounted for)

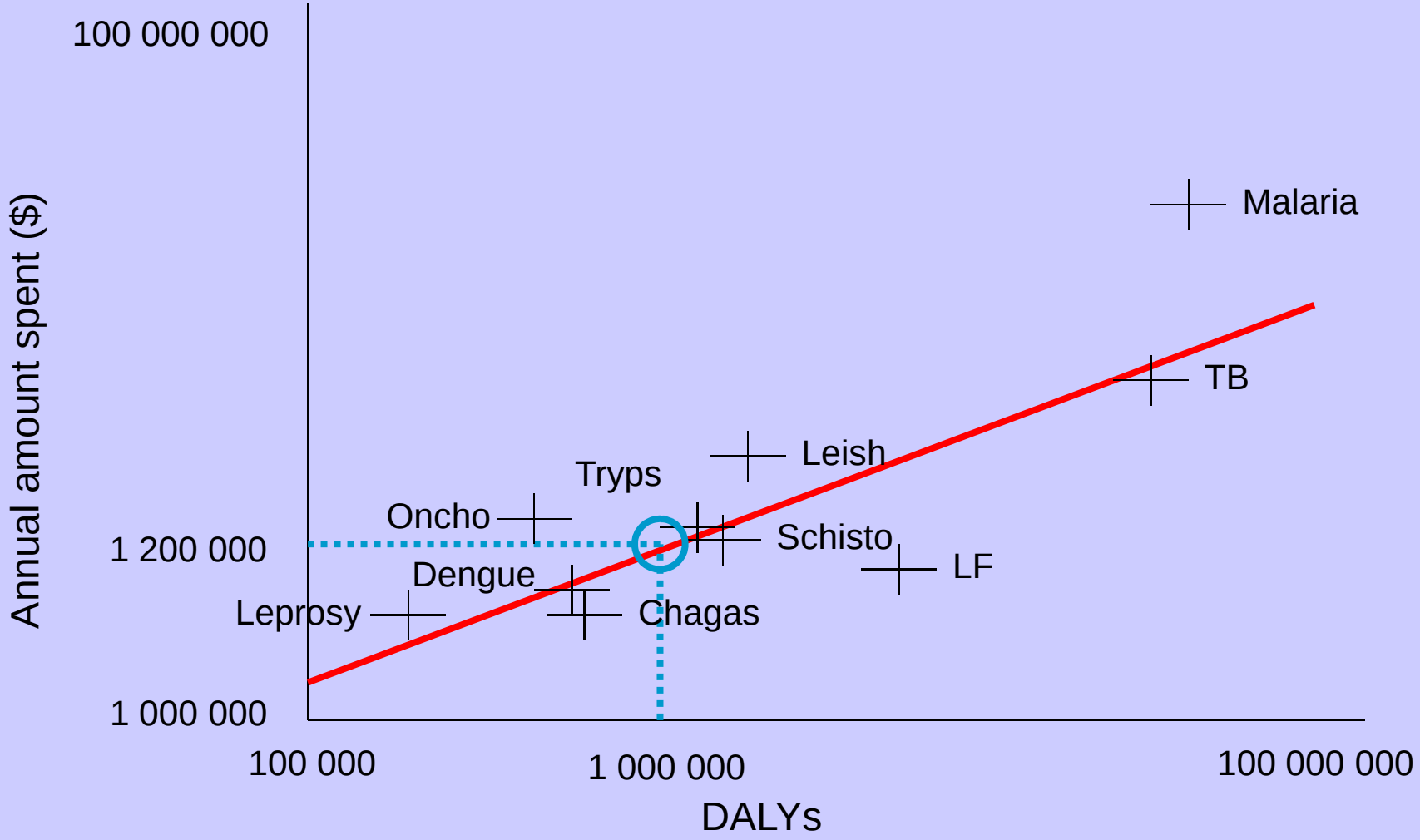
DALYs

1 009 662 (95 % CI 862 119 – 1 175 654)

Annual loss US $

763 980 979 (95 % CI 676 048 731 – 875 982 275)

Global socioeconomic impact of CE
Budke et al EID 2006



Recommended funding level for CE based on the TDR 2004-2005 approved program budget (UNICEF, UNCP, World Bank, WHO/TDR)

Budke et al 2006

UNDERREPORTING

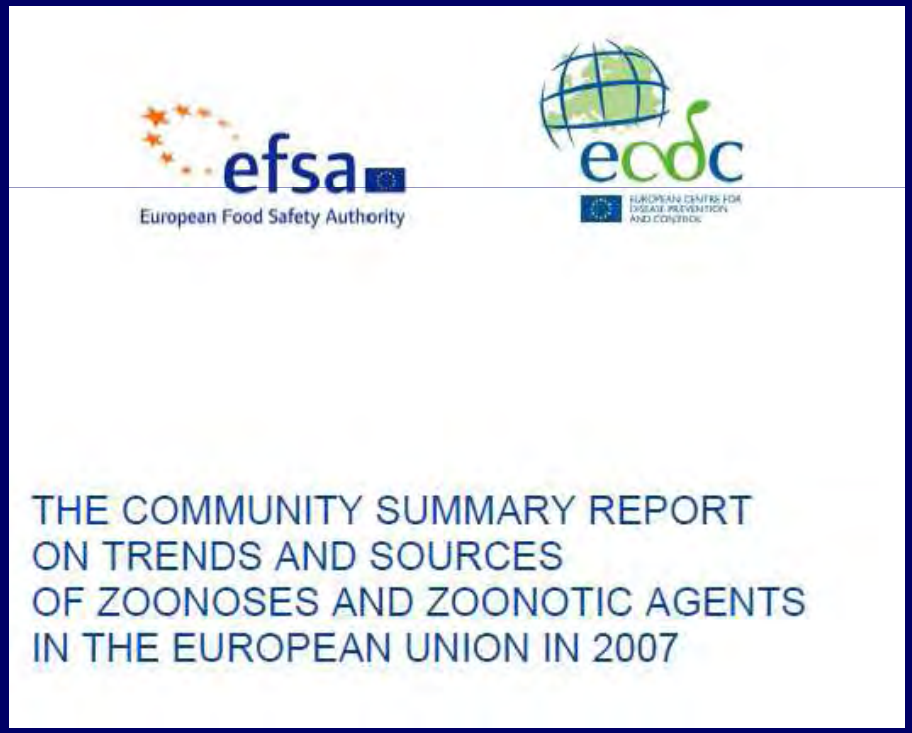


Table EH2a. Reported cases of echinococcosis in humans, 2003-2007, and notification rate in 2007[1]

Country	2007				2006	2005	2004	2003
	Report Type[2]	Cases	Confirmed cases	Confirmed cases per 100,000	Confirmed cases		Cases (Imported)	
Austria	A	17	17	0.2	26	9	25	34
Belgium	A	1	1	<0.1	1	0	1	-
Bulgaria[3]	A	461	461	6	543	-	-	-
Cyprus	C	4	4	0.5	6	1	0	2
Czech Republic	-	-	-	-	2	2	-	-
Denmark	–[4]	-	-	-		-	9 (9)	0
Estonia	C	2	2	0.1	0	0	0	1
Finland	C	1	1	<0.1	0	-	4	2
France	C	-	-	-	15	17	17	6
Germany	C	89	89	0.1	124	109	97	86
Greece	C	11	10	0.1	5	11	26	17
Hungary	C	8	8	0.1	6	5	11	-
Ireland	C	0	0	0	0	0	-	-
Italy	–[4]	-	-	-	0	-	-	1
Latvia	C	12	12	0.5	22	5	2	4
Lithuania	A	12	12	0.4	15	15	15	2
Luxembourg	-	-	-	-		0	-	-
Malta	U	0	0	0	0	0	-	-
Netherlands	A	11	6	<0.1	31	-	34	36
Poland	C	40	40	0.1	65	34	21	34
Portugal	C	10	10	0.1	9	9	57	10
Romania[3]	–[4]	-	-	-				
Slovakia	C	4	4	0.1	6	2	0	1
Slovenia	C	1	1	<0.1	3	0	1	1
Spain	C	125	125	0.3	98	78	6	167
Sweden	C	24	24	0.3	7	4	9	4
United Kingdom	C	7	7	<0.1	13	14	8	6
EU Total		**840**	**834**	**0.2**	**997**	**315**	**343**	**414**
Iceland	–[4]	-	-	-	-	-	-	-
Liechtenstein	U	0	0	0	-	-	-	-
Norway	U	0	0	0	0	1	0	0

1. Number of confirmed cases for 2005-2007 and number of total cases for 2003-2004
2. A: aggregated data report; C: case based report; —: No report; U: Unspecified
3. EU membership began in 2007
4. No surveillance system exists

- Mancanza di studi prospettici randomizzati

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Review

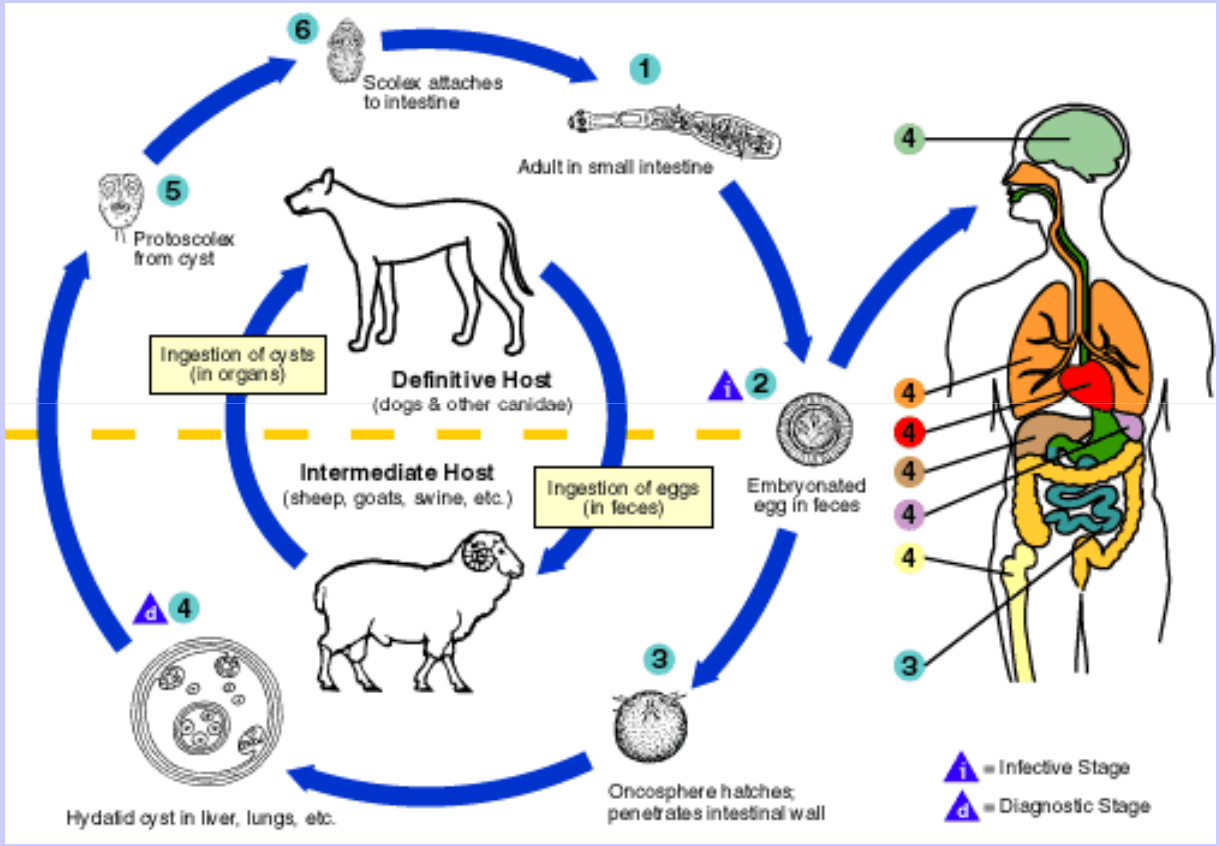
Expert consensus for the diagnosis and treatment of cystic and alveolar echinococcosis in humans☆

Enrico Brunetti[a,*,1], Peter Kern[b], Dominique Angèle Vuitton[c], Writing Panel for the WHO-IWGE[2]

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One Health, One Medicine

- EC è una zoonosi, ma…
- Nessuna integrazione medici/veterinari
- (es.avvertire i veterinari quando si vedono pazienti con cisti in fase iniziale)


6
Scolex attaches to intestine
1
Adult in small intestine
5
Protoscolex from cyst
Ingestion of cysts (in organs)
Definitive Host
(dogs & other canidae)
i 2
Embryonated egg in feces
Intermediate Host
(sheep, goats, swine, etc.)
Ingestion of eggs (in feces)
d 4
Hydatid cyst in liver, lungs, etc.
3
Oncosphere hatches; penetrates intestinal wall
4
4
4
4
4
4
3
i = Infective Stage
d = Diagnostic Stage

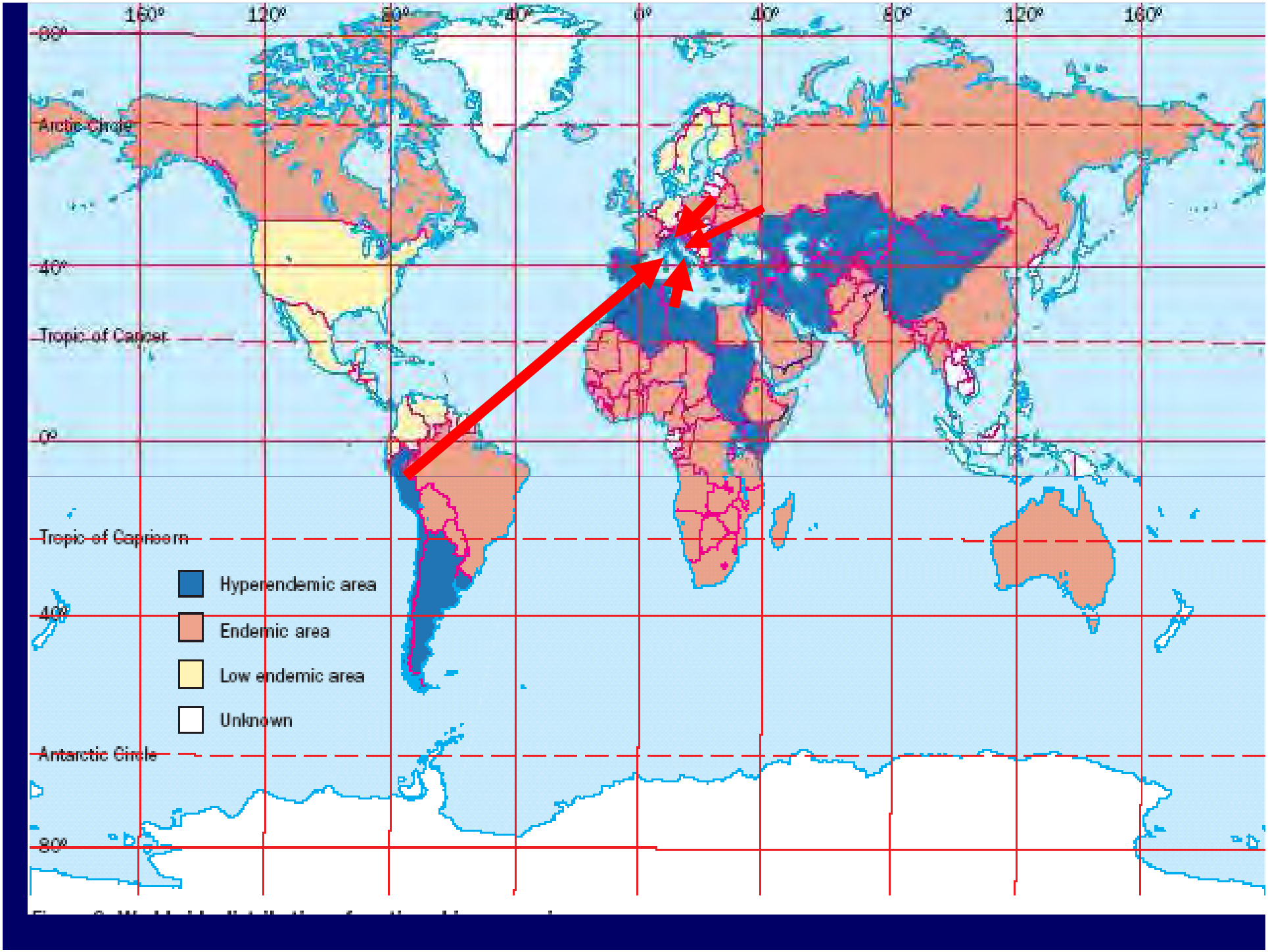
Complessità clinica

- Diagnosi basata su metodi di immagine, molto meno sulla sierologia

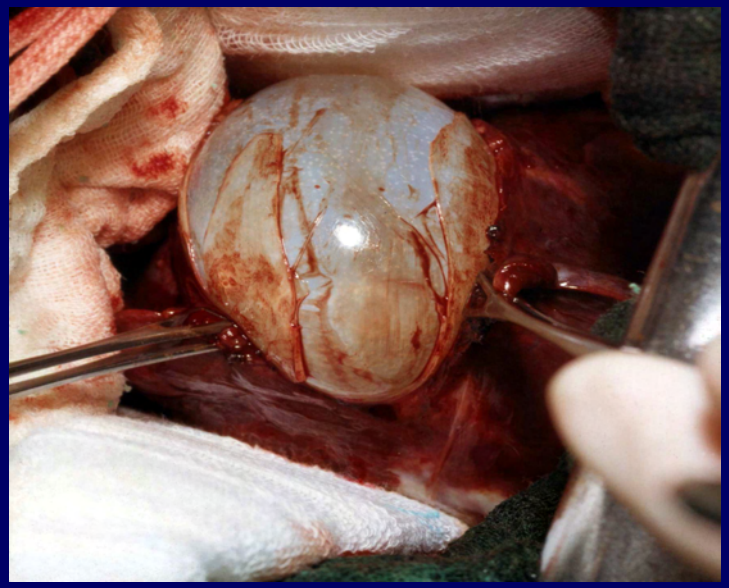
- Le uova non vengono emesse dall'uomo ma dal cane!

Malattia cronica

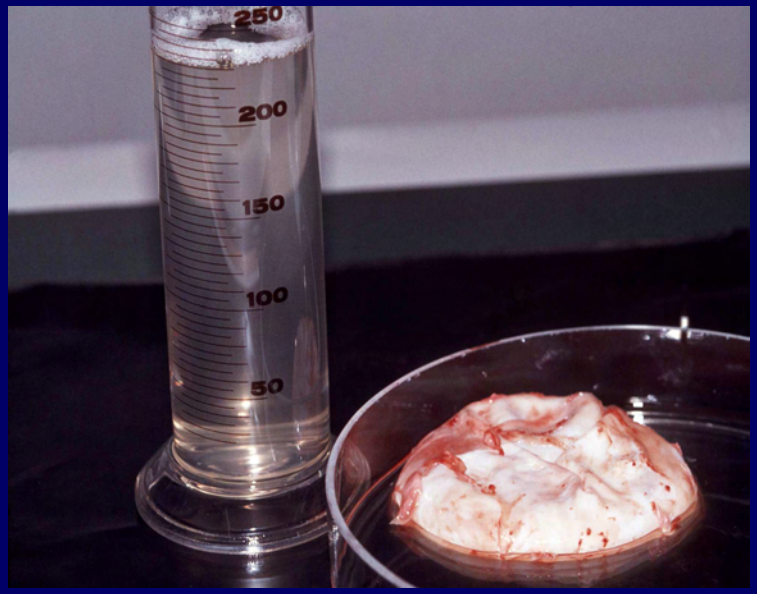
- A causa della lunga durata della malattia
- Negli immigrati le conseguenze della infezione possono ricadere sui sistemi sanitari dei paesi ospiti

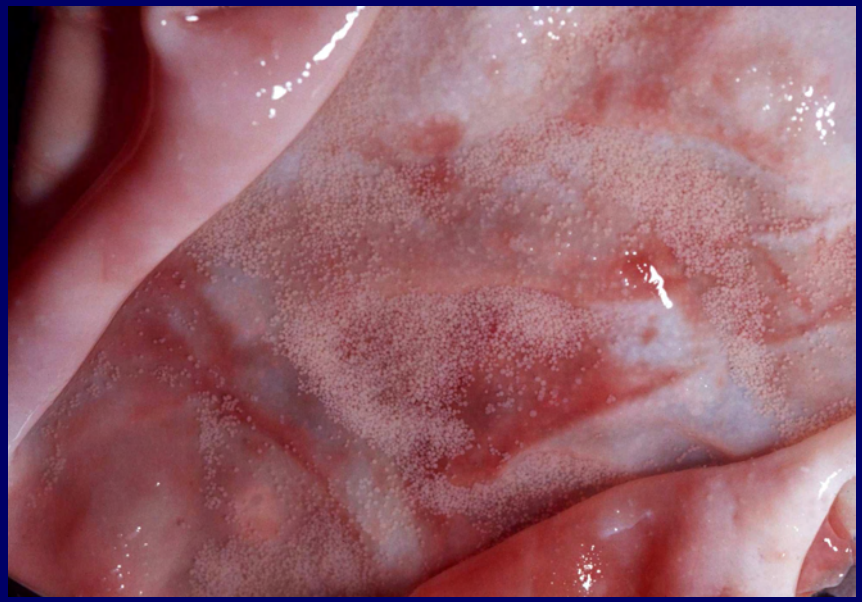

160°
120°
80°
40°
0°
40°
80°
120°
160°
80°
Arctic Circle
40°
Tropic of Cancer
0°
Tropic of Capricorn
40°
Antarctic Circle
80°
Hyperendemic area
Endemic area
Low endemic area
Unknown

Complessità clinica




6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23


250
200
150
100
50

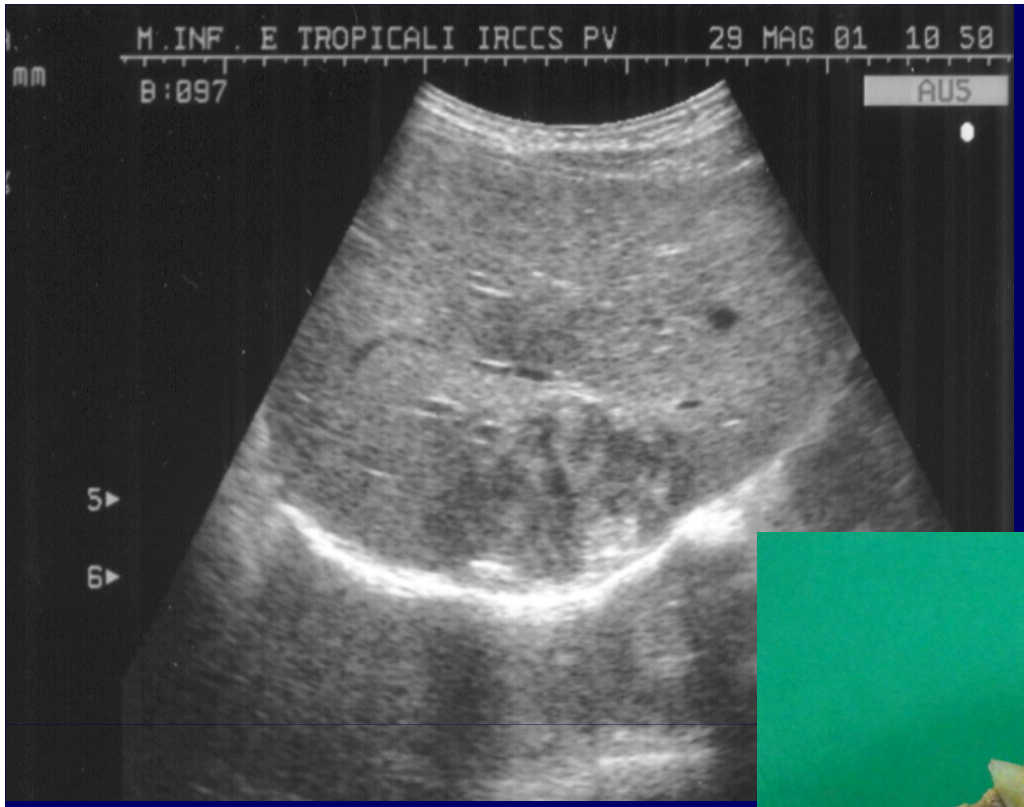


Condizione dinamica



1999 **2000** **2001**

Albendazolo





Courtesy

Prof.Turchetto Univ. Padova

CE1 CE3a CE4 CE5







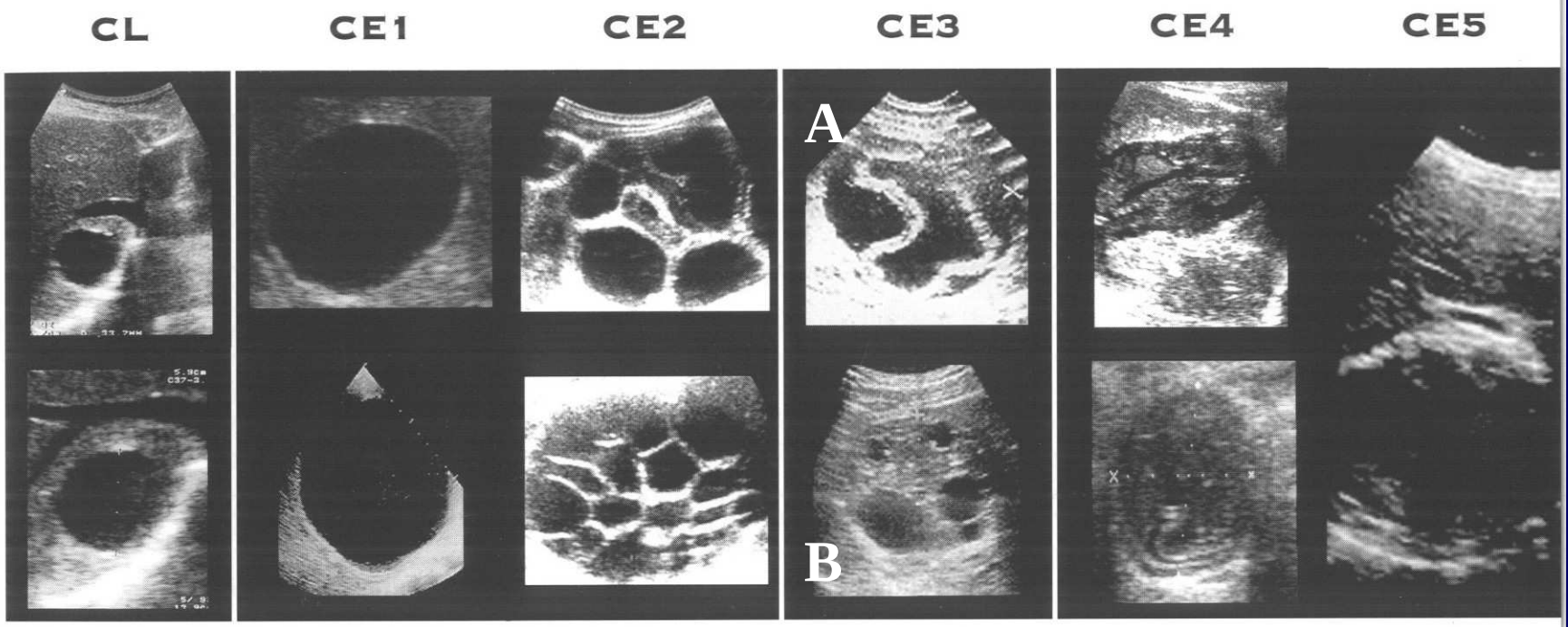


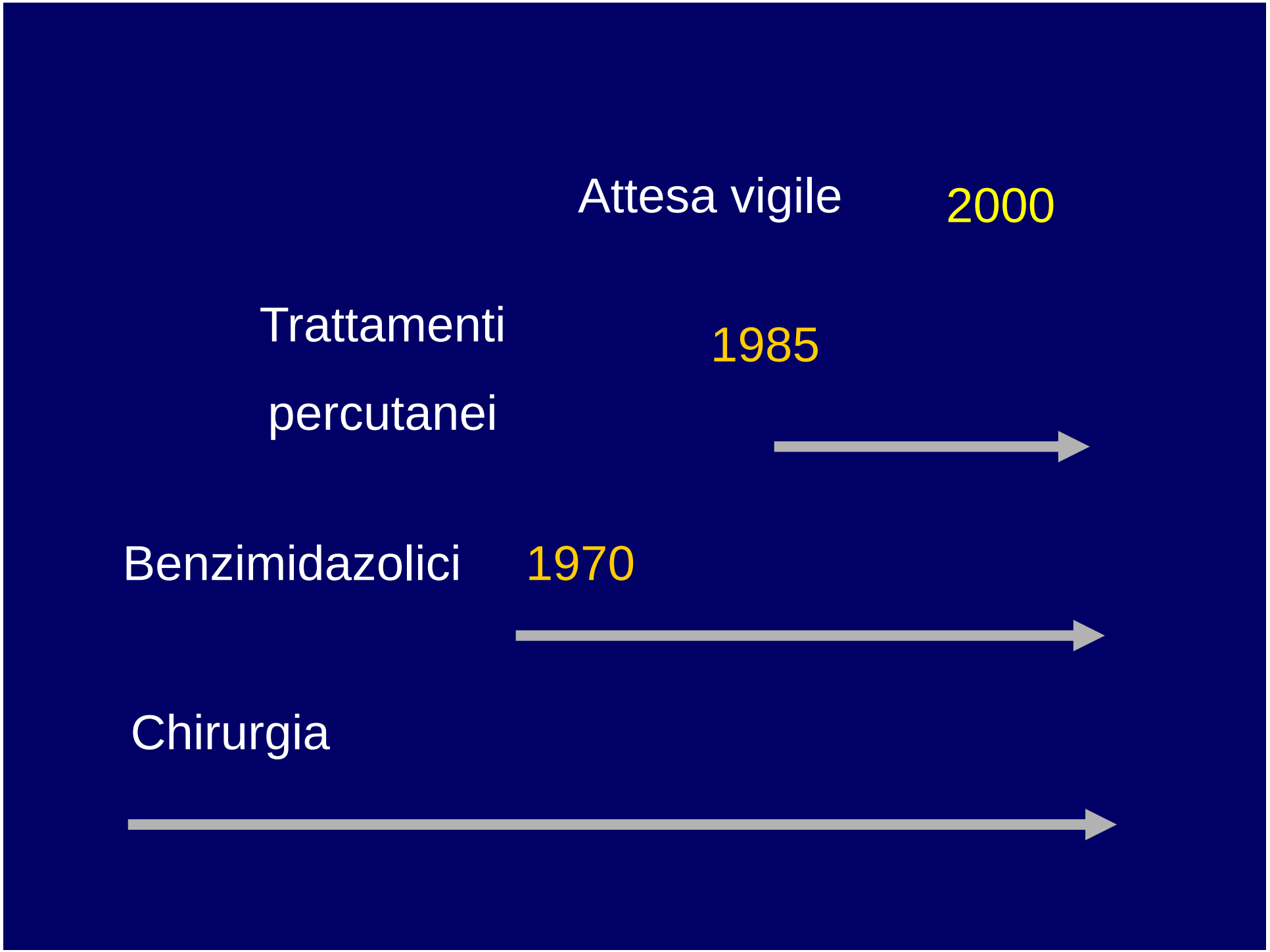




CE2 CE3b

WHO-IWGE Classification of Ultrasound Images of Cystic Echinococcosis Cysts




Attesa vigile
2000
Trattamenti
percutanei
1985
Benzimidazolici
1970
Chirurgia

Gestione clinica

Sede

Stadio

Dimensioni

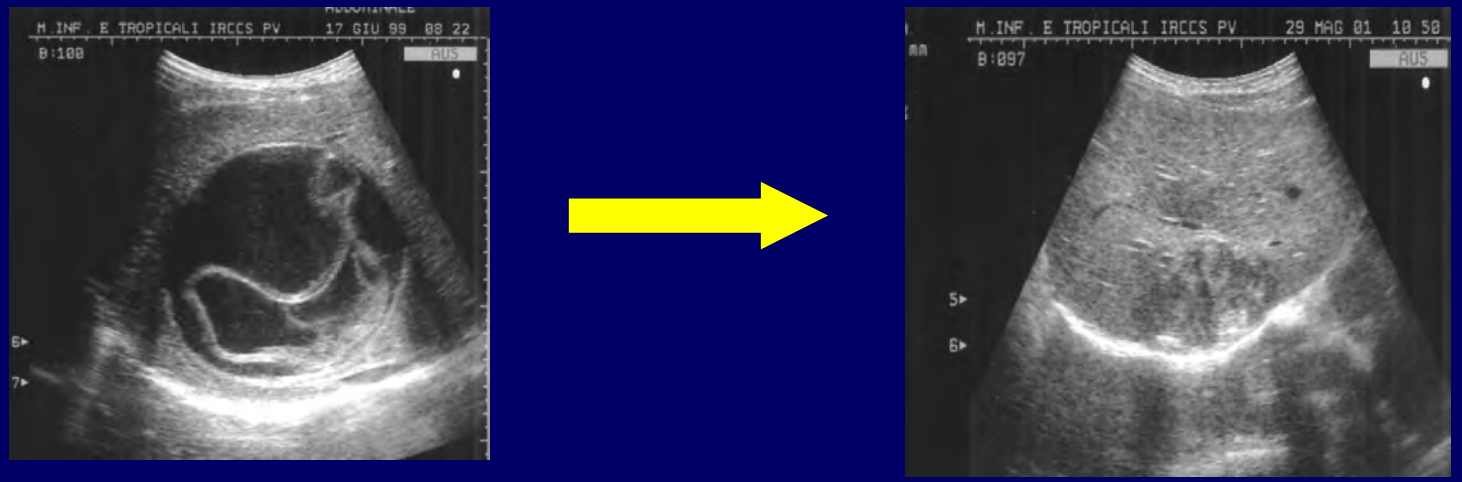
Complicanze

Cisti **Epatiche**

	S	M	L
CE1	ABZ	PAIR + ABZ	Catheter
CE2		Catheter	
CE3a	ABZ	PAIR + ABZ	Catheter
CE3b		Catheter	
CE4		WW	
CE5		WW	

Successo terapeutico

84,5 %



Fallimenti 15,5 %

- **CE2**
- **CE3b**

CE1 CE3a CE4 CE5

Th 1













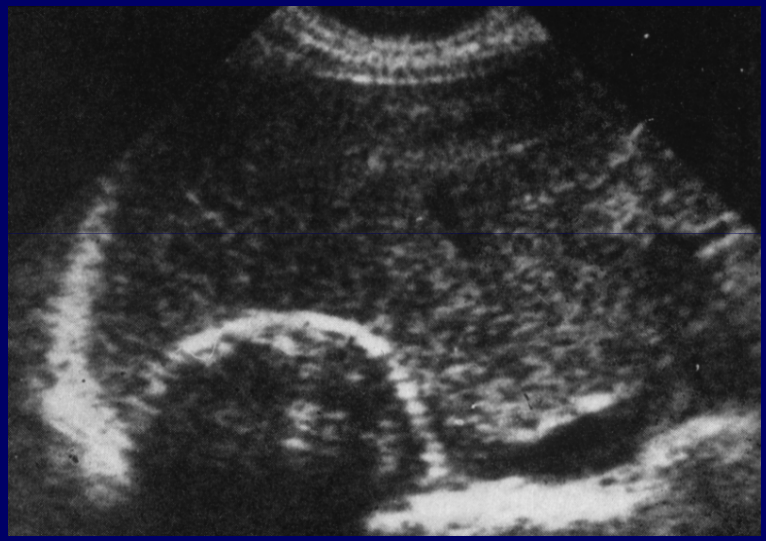
Th 2

- Nonostante la disponibilità di albendazolo e PAIR , molti pazienti sono ancora trattati con la chirurgia come prima scelta

WHO CC – Pavia

- Quasi un terzo delle cisti diagnosticate non richiedono trattamento ma solo follow-up.


M.INF. E TROPICALI IRCCS PV
29 MAG 01 10 50
B:097
AUS
5▸
6▸



PAIR v Surgery in Italy

PAIR = 1647 €

Surgery = 6402-7881 € depending on lenght of intervention

Piccoli et al submitted

Che fare?

- Ripristinare l’obbligo di denuncia
- Creare un registro nazionale (malattia complessa e cronica)
- Lavorare con i veterinari