

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Author(s), Year	Classification			Outcomes						
	Method of diagnosis	Pathological classification	Anatomical classification	Total number ARill/ARinf, number of ARill episodes or number of participants with ARill/ARinf	Time Loss ARill (>1 day) (n; %)	Days lost per ARill (days and mean \pm SD)*	Days lost (total days lost/ illness and total illnesses)	Symptom duration in days (mean \pm SD or average) *	Duration of symptoms (days and number of athletes)	Other outcomes
Alonso et al (2012)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARill/ARinf	Total upper ARill n=49 Upper ARinf n=23	n=5 (5/23) 21% of upper ARinf					
Bjørneboe et al (2016)	Physician (diagnosis by history and clinical examination)	Undiagnosed ARill	General (upper/lower) ARill	ARill episodes n=1110						Illness burden 3.2 absence days/1000 player-days
Chesson et al (2020)	Self-reported symptoms only	Undiagnosed ARill	General (upper/lower) ARill	ARill n=15		Time loss (days) due to ARill n=12 days				Total days lost due to all illness n=19. Total days lost to ARill n=12 (63.2% of all time loss illnesses)
Cox et al (2010)	Self-reported symptoms with checklist and algorithm to diagnose infections	Undiagnosed ARill	Upper ARill	Upper ARill n=14				4.1 \pm 3.7		

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Cox et al (2010) ^a	Self-reported symptoms with physician check (no examination)	Suspected ARinf	General (upper/lower) ARinf	ARinf episodes n=9				Mean 8 (Range not specified)	Total days all ARinf n=72	
Cox et al (2008) ^a	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARill/ARinf	All upper ARill episodes n=70 (confirmed upper ARinf pathogen identified n=21/70 (30%))				6.8 ± 3.8		50% of the athletes modified, 31% ceased all training, and 19% reduced their training volume or intensity
Cox et al (2008) ^b	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Suspected upper ARinf (PCR negative but abnormal blood results) n=19/70 (27%)				6.1 ± 3.4		
Cox et al (2008) ^c	Physician (diagnosis by history and clinical examination)	Undiagnosed ARill	Upper ARill	Undiagnosed ARill n=30/70 (43%)				7.5 ± 3.4		
Cox et al (2004)	Self-reported symptoms with physician check (no examination)	Suspected ARinf	Upper ARinf	Upper ARinf n=6 in placebo month				Mean 5 Range (2-14)		

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Cunniffe et al (2011)	Self-reported symptoms with physician check (no examination)	Undiagnosed ARill	Upper ARill	Upper ARill n=123				Mean 4.7 Range (2-33)		In all ARill, 14% reported reduced activity, 8.6% felt need to go to bed
Da Boit et al (2015)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf n=8				2.79 ± 1.76		
Davison et al (2020)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Total upper ARinf n=130 episodes		Days lost 3.5 ± 5.0		10.4 ± 8.5		Reduced training 3.4 ± 5.1 (Mean ± SD)
Derman et al (2019)	Physician (diagnosis by history and clinical examination)	Undiagnosed ARill	General (upper/lower) ARill	All ARill n=28		Days lost n=9				
Derman et al (2014)	Physician (diagnosis by history and clinical examination)	Undiagnosed ARill	General (upper/lower) ARill	All ARill n=152	n=19 (19/152) 12.5% of all ARill					
Dressendorfer et al (2002)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf n=4 (including 1 case influenza)	n=1 (influenza case) (1/5) 20% of upper ARinf	Influenza time loss days n=7 days; other upper ARinf time loss days n=0				

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Edouard et al (2015)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf n=8	n=4 (4/8) 50% of all upper ARinf					
Edouard et al (2014)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf n=9	n=4 (4/9) 44% of upper ARinf					Upper ARinf time loss n=4, all time-loss illness n=6 (66.7% of all time loss illnesses)
Edouard et al (2013)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf n=8	n=1 (1/8) 12.5% of upper ARinf					
Fahlman and Engels (2005)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf n=174				13.3 ± 3.6		
Fricker et al (2005)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	15 athletes reported at least one episode of upper ARinf with mean number of episodes 2.5 (range 1-5)				Mean 8.3 Range (2-44)		

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Furusawa et al (2007)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Number of racers with ARinf symptoms n=8 ("throughout experiment") n=4 (post-race)						
Gleeson et al (2012) ^a	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	At least one week with upper ARinf n=50, ≥3 weeks with upper ARinf n=24				3.6 ± 1.0		
Gleeson et al (2011)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Number of ARinf episodes 2.1 ± 1.2 (Mean ± SD)				7.6 ± 3.2		
Hall et al (2007)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf n=7				8.6 ± 1.5 (Mean ± SE)		
Hanstad et al (2011)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Total ARinf n=4; Infectious mononucleosis n=1, Upper ARinf n=3						n=1 did not compete, n=2 missed one competition, n=1 missed a relay for example

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Haywood et al (2014)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Players with upper ARinf symptoms n=19				6.7 ± 7.9		
He et al (2014)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf symptoms n=92				11.6 ± 6.8 (males) 15.5 ± 9.3 (females) Mean 13 (all)		
He et al (2013) ^a	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Number of ARinf episodes 1.0 ± 1.1 (Mean ± SD)				8.2 ± 4.0		
He et al (2013) ^b	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Participant with ≥ 1 episode of upper ARinf n=103				Mean 5 Range (5-7) (optimal Vit D n=3) Mean 8 Range (6-9) (adequate Vit D n=56) Mean 8 Range (5-14) (inadequate Vit D n=27) Mean 13 Range (10-17) (deficient Vit D n=12)		Training negatively affected in 70% of athletes with upper ARinf and training load reduced by an average of 24%.

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Henson et al (2008)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf n=5					Total sick days n=29 (for 5 ill athletes)	
Ihalainen et al (2015)	Self-reported symptoms only	Undiagnosed ARill	Upper ARill	Episodes of upper ARill symptoms n=19				11 ± 7		
Kekkonen et al (2007)	Self-reported symptoms only	Suspected ARinf	UpperARinf	Upper ARinf n=28				6.3 ± 4.3 (training group) 4.2 ± 2.2 (post-marathon group)		
Laaksi et al (2007)	Physician (diagnosis by history and clinical examination)	Suspected ARinf	General (upper/lower) ARinf			Median: 2; Q1-Q3: 0–4				
McFarlin et al (2013)	Self-reported symptoms only	Suspected ARinf	Upper ARinf					3.9 ± 0.2		
Michalickova et al (2016)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Athletes with upper ARinf n=11		Total days without training n=1.7 ± 2.3		10.6 ± 4.7	Infected days n=132 in 11 athletes	Proportion of athletes reporting impaired training 42%

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Nehlsen-Cannarella et al (2000)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf					5.2 ± 1.2 (Mean ± SE)		
Nieman et al 2008	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf n=6				3.7 ± 0.6 (Mean ± SE)		
Nordstrøm et al (2020)	Self-reported symptoms only	Undiagnosed ARill	General (upper/lower) ARill	All ARill n=151	n=53 (53/151) 35.1% of ARill		ARill total days lost n=280, total number of ARill n=151			Total days lost due to ARill n=280 (59.8% of all time loss illnesses)
Orhant et al (2010) ^a	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf n=151	n=17 (17/151) 11.3% of all upper ARinf	Days lost n=34	Days lost per episode 2.0	Mean 3.1 (Range not specified)		
Orhant et al (2010) ^b	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Lower ARinf	Lower ARinf n=4	n=2 (2/4) 50% of all lower ARinf	Days lost n=5	Days lost per episode 2.5	Mean 4.8 (Range not specified)		
Orysiak et al (2017)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf n=59				6.3 ± 4.6	Total symptom days n=427 in 27 athletes	

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Pacque et al (2007)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf: Pre-race n=4, post-race n=3				Average 8.5 (pre-race period) Average 6 (post-race period)	Total symptom days n=34 (pre-race) n=18 (post-race)	
Peters et al (2004)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf Fast well trained (FWT) n=5 Slow less trained (SLT) n=4				Average 4.3 (FWT) Average 3.5 (SLT)		
Pyne et al (2001)	Physician (diagnosis by history and clinical examination)	Undiagnosed ARill	General (upper/lower) ARill	ARill n=18				Median 4 Range (1-21)		
Rama et al (2013)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Episodes of upper ARinf n=31 in 19 athletes				6.7 ± 0.4		
Sawczuk et al (2020)	Self-reported symptoms only	Suspected ARinf	Upper ARinf	Upper ARinf episodes n=45				17 ± 18		
Schwellnus et al (2012) ^a	Physician (diagnosis by history and clinical examination)	Suspected ARinf	General (upper/lower) ARinf	All ARinf n=98	Estimated time loss ARinf n=18 (18/98) 18.4% of all ARinf					

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Schwellnus et al (2012) ^b	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARill/ARinf	Upper ARill n=72	Upper ARinf n=13 (13/72) 18.1% of upper ARill					
Soligard et al (2017)	Physician (diagnosis by history and clinical examination)	Undiagnosed ARill	General (upper/lower) ARill	All ARill n=292	ARill n=54 (54/292) 18.5% of all ARill					
Somerville et al (2019)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf n=12				Average 12.3		
Somerville et al (2019) ^a	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Number of subjects with ARinf in cohort 2 n=8, cohort 3 n=17, amateurs n=6				Mean upper ARinf duration per 1000 non-illness days 59.6 ± 183.2 (cohort 2) 522.1 ± 1138.8 (cohort 3) 64.3 ± 173.9 (amateurs)		
Somerville et al (2019) ^b	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Number of subject with ARinf in professional cohort n=12				Mean Upper ARinf duration per 1000 non-illness days 32.6 ± 59.7 (professionals)		

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Spence et al (2007) ^a	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	All athletes confirmed ARinf n=9				9.6 ± 2.4		Rhinovirus most common pathogen isolated. Symptom and functional impairment severity scores were higher in subjects with an infectious pathogen episode, particularly on illness days 3–4
Spence et al (2007) ^b	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	All athletes suspected upper ARinf n=19				6.5 ± 3.2		
Steffen et al (2019)	Physician (diagnosis by history and clinical examination)	Undiagnosed ARill	General (upper/lower) ARill	All ARill n=168	n=37 (37/168) 22% of ARill					Time loss ARill n=37, all illness time loss n=66 (56.1% of all time loss illness)
Stephenson et al (2019)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Upper ARinf	Upper ARinf n=22						During 50% of upper ARinf episodes, athletes had to reduce or

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

										suspend training
Svensden et al (2016)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	General (upper/lower) ARinf	All ARinf n=410				5 ± 4		
Tiollier et al (2005) ^a	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf episodes n=16 (upper ARinf symptoms recorded n=30: rhinopharyngitis n=12/30 (40%))				7.6 ± 1.2 (Mean ± SEM)		
Tiollier et al (2005) ^a	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf (tonsillitis) n=5/30 (17%)				8.2 ± 3.8 (Mean ± SEM)		
Tiollier et al (2005) ^a	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf (sinusitis) n=4/30 (13%)				10.7 ± 4.8 (Mean ± SEM)		
Tiollier et al (2005) ^a	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Upper ARinf	Upper ARinf (otitis media) n=3/30 (10%)				4.3 ± 0.9 (Mean ± SEM)		

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Tiollier et al (2005) ^b	Physician (diagnosis by history and clinical examination)	Suspected ARinf	Lower ARinf	Lower ARinf (bronchitis) n=6/30 (20%)				7.8 ± 2.3 (Mean ± SEM)		
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Upper ARinf (athletes with symptoms of “common cold”) n=20				8.3 ± 7.8		Only one athlete lost competition on 1 day due to a respiratory infection
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Coronavirus 229E n=2				13.5 ± 16.3		
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Influenza B n=1				7.0		
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Respiratory syncytial virus (RSV) A n=4				8.7 ± 3.2		

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	UpperARinf	Rhinovirus n=1				2.0		
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Metapneumo virus n=4				4.0 ± 1.7		
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Coronavirus NL63 n=1				3.0		
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Coronavirus OC43 n=2				18.0 ± 11.3		
Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Respiratory syncytial virus (RSV) B n=1				7.0		

Supplementary Table B: Summary of articles: data extraction by classification and outcomes

Valtonen et al (2019)	Physician diagnosis including pathology confirmed (PCR/culture/serology)	Confirmed ARinf	Upper ARinf	Influenza A n=1				3.0		
West et al (2011)	Self-reported symptoms with checklist and algorithm to diagnose infections	Suspected ARinf	Lower ARinf					7.4 ± 10.3 (males) 5.1 ± 14.7 (females)		

ARill: Acute respiratory illness

ARinf: Acute respiratory infection

* Values are mean ± standard deviation (SD) unless stated differently