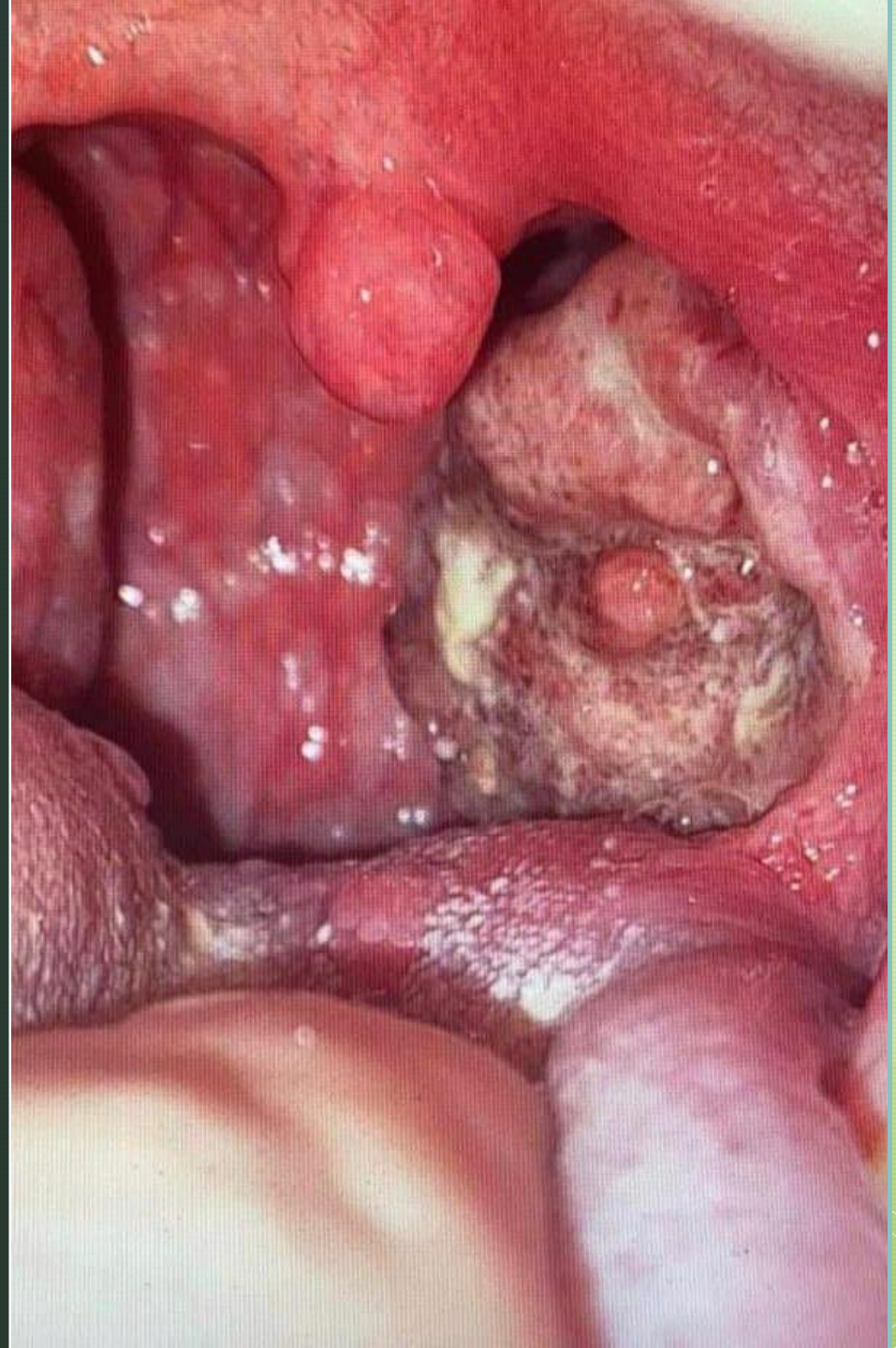


Disease burden, screening and treatment of head and neck cancers in Poland

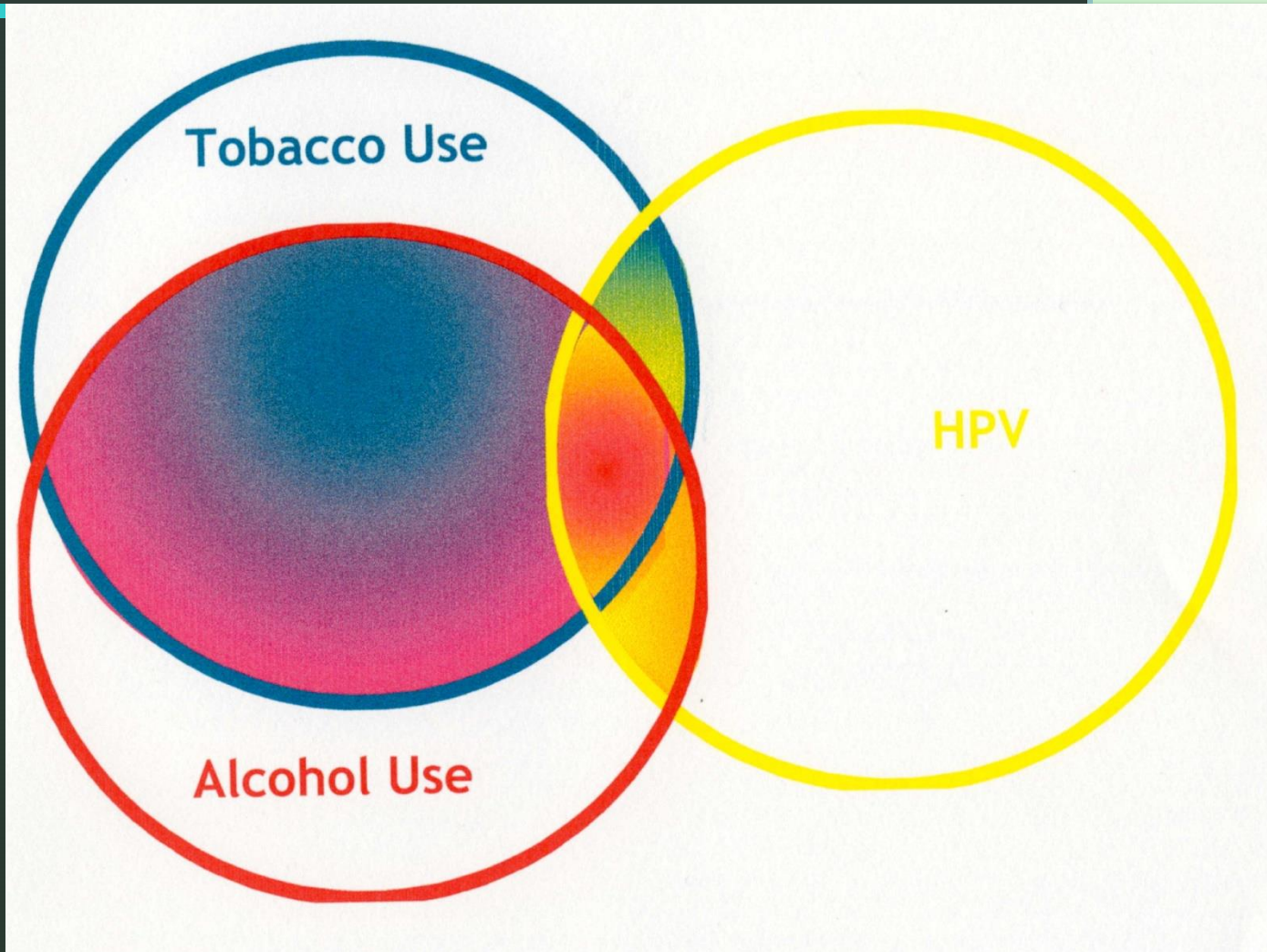
MD PhD Tomasz Szafarowski,

Assistant Professor

Otolaryngology Clinic, Faculty of Medicine
and Dentistry, Medical University of
Warsaw



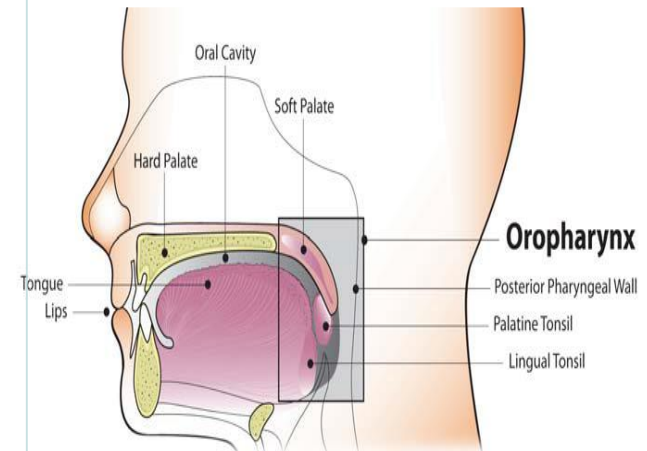
Head and Neck Cancer Risk Factors

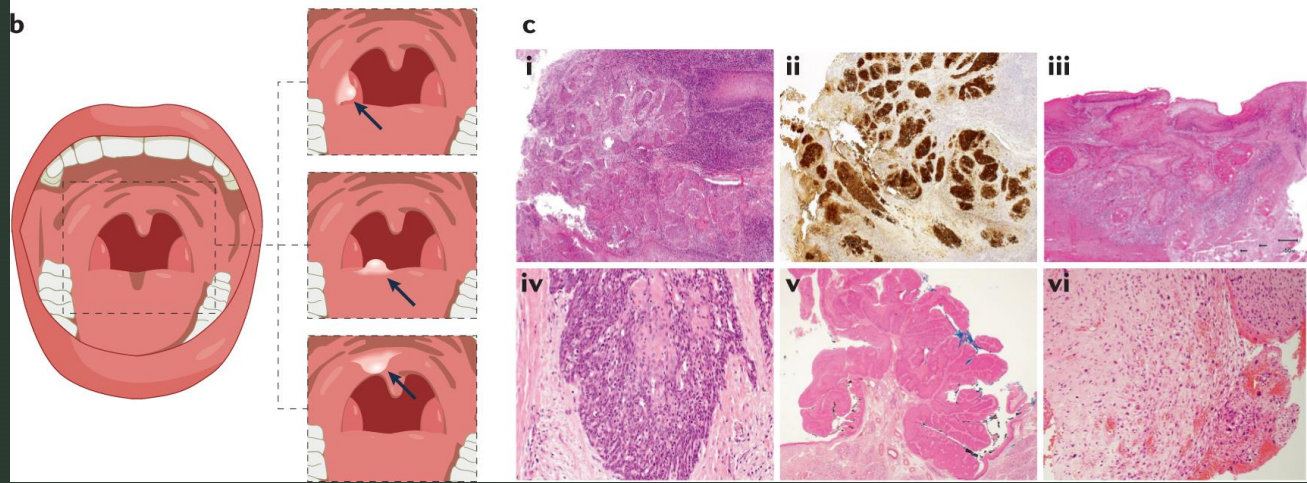
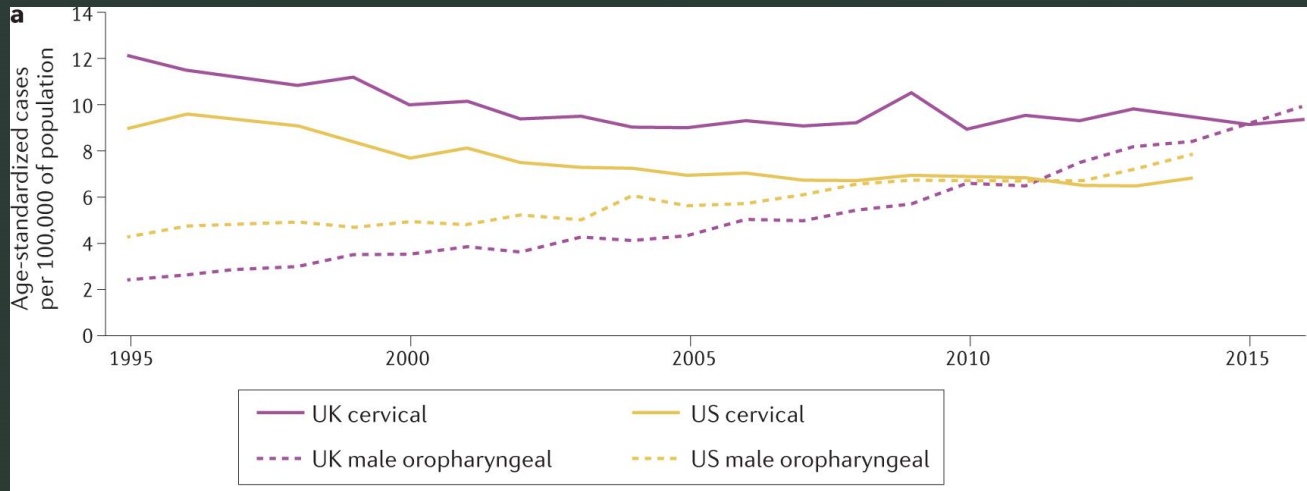


OPSCC has historically been linked to alcohol and tobacco consumption

HPV-associated oropharyngeal cancer

- Oropharyngeal squamous cell carcinoma (OPSCC) comprises cancers of the tonsils, base of tongue, soft palate and uvula
- The incidence of human papillomavirus-positive (HPV+) oropharyngeal squamous cell carcinoma (OPSCC) is rising rapidly
- Tonsillar complex and the base of the tongue comprise 96% of oropharyngeal tumours



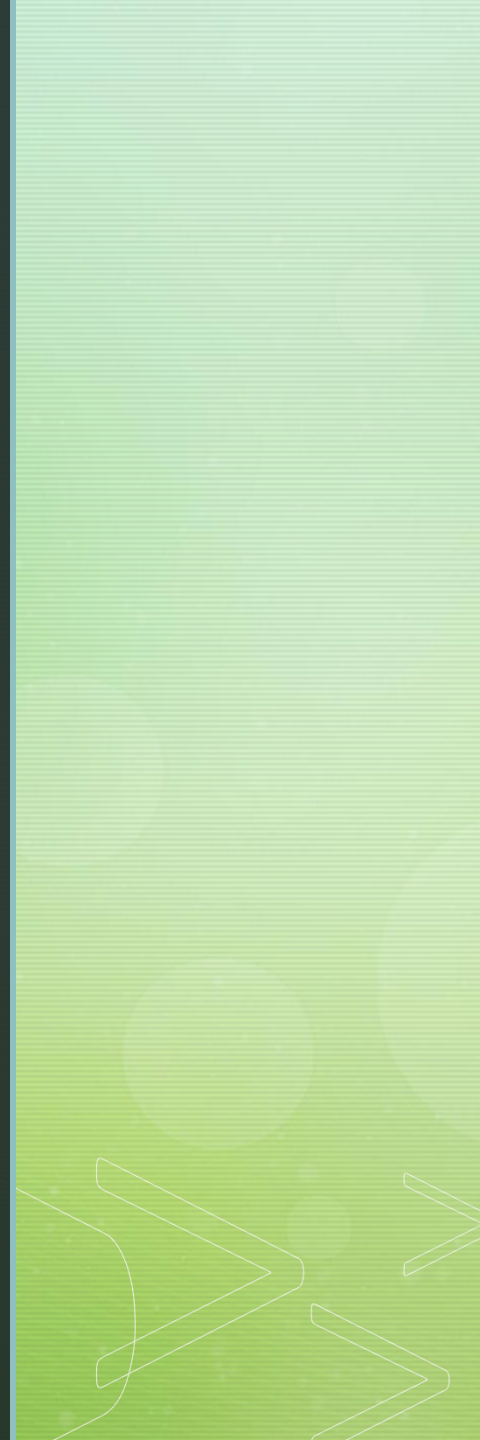


HPV-associated oropharyngeal cancer: epidemiology, molecular biology and clinical management, Matt Lechner *Nature Reviews Clinical Oncology* volume 19, pages 306–327 (2022)

HNSC statistics in Poland



Polish National Cancer Registry



Laryngeal Cancer Stat Facts

Zachorowania/Zgony

Trendy czasowe



KRAJOWY REJESTR
NOWOTWORÓW

Grupuj według	Kod nowotworu, Rok
Metryki	Zgony (Umieralność), Zachorowania (Zachorowalność)
Statystyka	Współczynnik surowy
Płeć	Mężczyźni
Nowotwory	Krtąń
Region	Polska
Grupy wiekowe	0 do 89
Przedział czasowy	2000 do 2020

Współczynnik surowy



Krtąń, Zgony (Umieralność)

Krtąń, Zachorowania (Zachorowalność)

Tonsils Cancer Incidence - Women

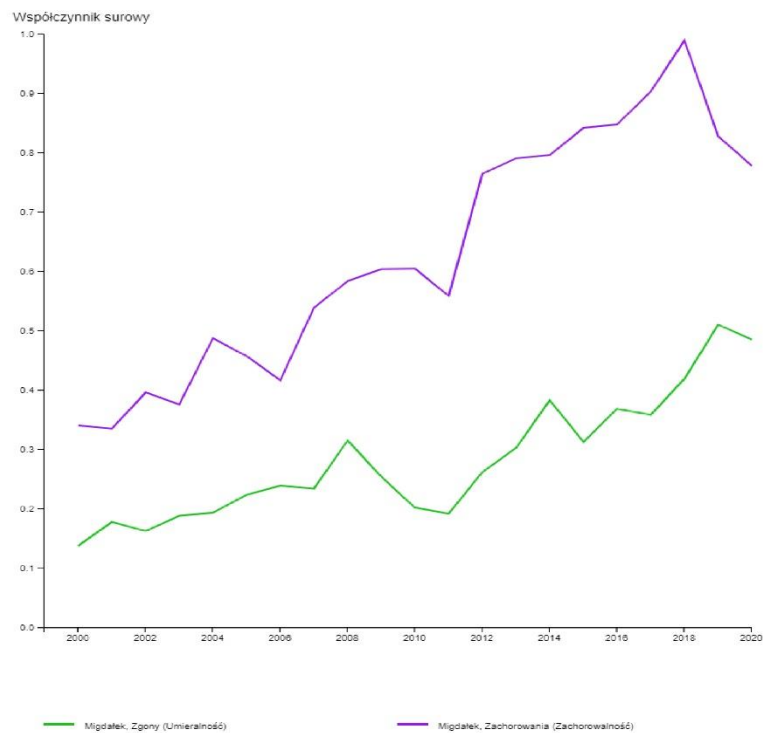
Zachorowania/Zgony

Trendy czasowe



KRAJOWY REJESTR
NOWOTWORÓW

Grupuj według	Kod nowotworu, Rok
Metryki	Zgony (Umieralność), Zachorowania (Zachorowalność)
Statystyka	Współczynnik surowy
Płeć	Kobiety
Nowotwory	Migdałek
Grupy wiekowe	0 do 89
Przedział czasowy	1963 do 2020



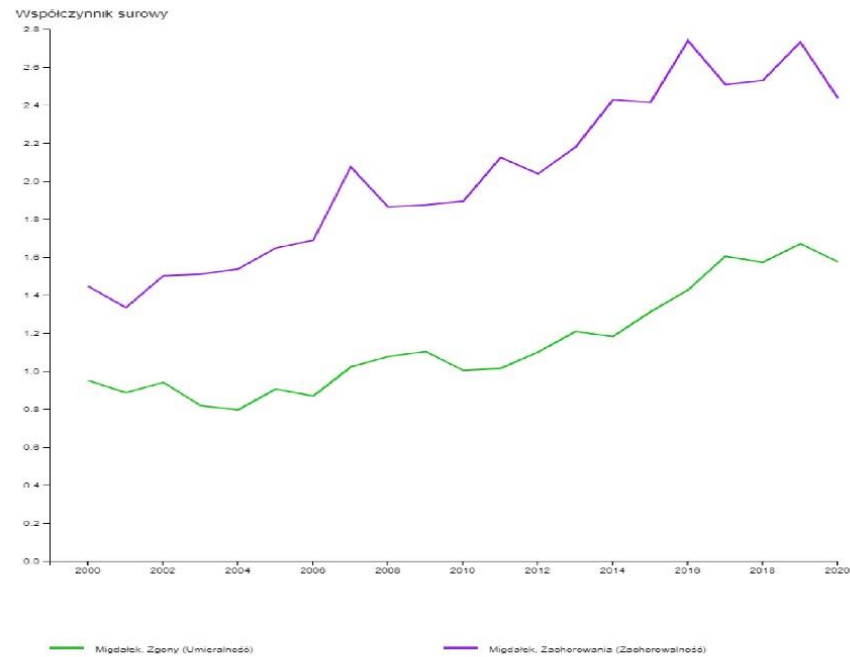
Tonsils Cancer Incidence - Men

Zachorowania/Zgony Trendy czasowe



KRAJOWY REJESTR
NOWOTWORÓW

Grupuj według	Kod nowotworu, Rok
Metryki	Zgony (Umieralność), Zachorowania (Zachorowalność)
Statystyka	Współczynnik surowy
Płeć	Mężczyźni
Nowotwory	Migdalek
Grupy wiekowe	0 do 89
Przedział czasowy	1963 do 2020



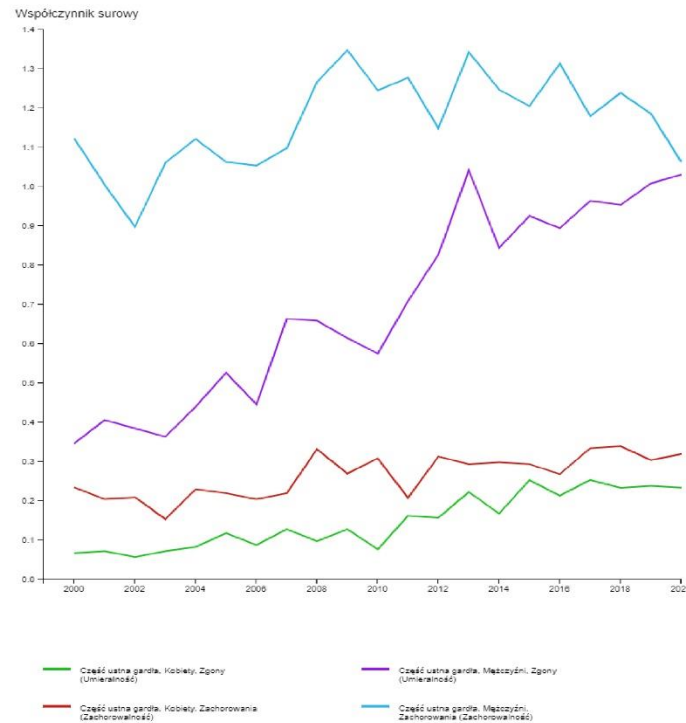
Oropharyngeal Cancer Incidence

Zachorowania/Zgony Trendy czasowe



KRAJOWY REJESTR
NOWOTWORÓW

Grupuj według	Kod nowotworu, Rok
Metryki	Zgony (Umieralność), Zachorowania (Zachorowalność)
Statystyka	Współczynnik surowy
Pieć	Mężczyźni, Kobiety
Nowotwory	Część ustna gardła
Grupy wiekowe	0 do 89
Przedział czasowy	1963 do 2020



HPV - related oropharyngeal cancers

- 60% in Republic of Korea,
- 51% in North America,
- 50% in Eastern Europe,
- 46% in Japan,
- 42% in North-Western Europe,
- 41% in Australia/New Zealand, 24% in South Europe, 23% in China, 22% in India, and 13%

Table 37: Studies on HPV prevalence among cases of oropharyngeal cancer in Poland

Study	HPV detection method and targeted HPV types	No. Tested	HPV Prevalence		Prevalence of 5 most frequent HPVs, HPV type (%)
			%	(95% CI) ^a	
MEN					
No data available	-	-	-	-	-
WOMEN					
No data available	-	-	-	-	-
BOTH OR UNSPECIFIED					
Ribeiro 2011	PGMY09/11 (L1) Amplification with TS primers (16)	136	0.7	(0.1-4.0)	HPV 16 (0.7)
Snietura 2010	Real-time High Risk HPV test (Abbott Molecular) using L1 consensus primers Amplification with TS primers (16. 18. 31. 33. 35. 39. 45. 51. 52. 56. 58. 59. 66 and 68 - the technique only differentiates 16-18-other)	14	50.0	(26.8-73.2)	HPV 16 (50.0)
Szkaradkiewicz 2002	MY09/MY11 (L1) Amplification with TS primers (16. 18)	28	10.7	(3.7-27.2)	-

Data updated on 9 May 2016 (data as of 31 Dec 2015)

DBH: Dot Blot Hybridization; EIA: Enzyme ImmunoAssay; HC2: Hybrid Capture 2; ISH: In Situ Hybridization; LBA: Line-Blot Assay; LiPA: Line Probe Assay; PCR: Polymerase Chain Reaction; RFLP: Restriction Fragment Length Polymorphism; RLBH: Reverse Line Blot Hybridization; RT-PCR: Real Time Polymerase Chain Reaction; SBH: Southern Blot Hybridization; SPF: Short Primer Fragment; TS: Type Specific

Only for European countries

^a 95% Confidence Interval

Data Sources:



Ribeiro KB, Int J Epidemiol 2011; 40: 489 | Snietura M, Pol J Pathol 2010; 61: 133 | Szkaradkiewicz A, Clin Exp Med 2002; 2: 137

Based on systematic reviews and meta-analysis performed by ICO. Reference publications: 1) Ndiaye C, Lancet Oncol 2014; 15: 1319 2) Kreimer AR, Cancer Epidemiol Biomarkers Prev 2005; 14: 467



Original Article

Prognostic value of human papillomavirus detection and the eighth edition of the TNM classification staging system in oropharyngeal squamous cell carcinoma: A single-center Polish study

Monika Durzynska MD, PhD^a  , Dorota Kiprian MD, PhD^b,
Anna Szumera-Cieckiewicz MD, PhD^{a, c}, Pawel Leszczynski MSc^d, Aleksandra Florek MSc^d,
Miroslaw Snietura MD, PhD^e, Irmina Maria Michalek MD, PhD^a,
Elwira Bakula-Zalewska MD, PhD^a, Monika Prochorec-Sobieszek MD, PhD^a

- 110 OPSCC cases

70.9% of cases, with HPV16 being the most prevalent genotype (96.2%)

Palatine tonsils were the most prevalent tumor site, constituting over 80% of cases

International Epidemiologic Study of Worldwide Distribution of Type-specific Human Papillomaviruses HPV (DNA) in invasive Head and neck Cancers



Catalan Institute of Oncology,
Barcelona, Spain

“HPV Involvement in Head and Neck Cancers: Comprehensive Assessment of Biomarkers in 3680 Patients” Xavier Castellsague, Laia Alemany, Miquel Quer et al. J. Natl Cancer Inst 2016

EUROPE (2,291)

Belarus (72)
Spain (731)

France (60)

Poland (244)

Bosnia-Hz (82)
UK (321)

Germany (264)

Portugal (48)

Czech R (163)

Italy (150)

Slovenia(156)

ASIA

(462)

Bangladesh (94)

India (108)

Korea S (148)

Philippines (61)

Turkey (51)

N AMERICA

(106)

USA (106)

C-S AMERICA

(1,265)

Argentina (32)

Bolivia (209)

Chile (17)

Colombia (220)

Ecuador (209)

Guatemala (86)

Honduras (120)

Mexico (197)

Paraguay (156)

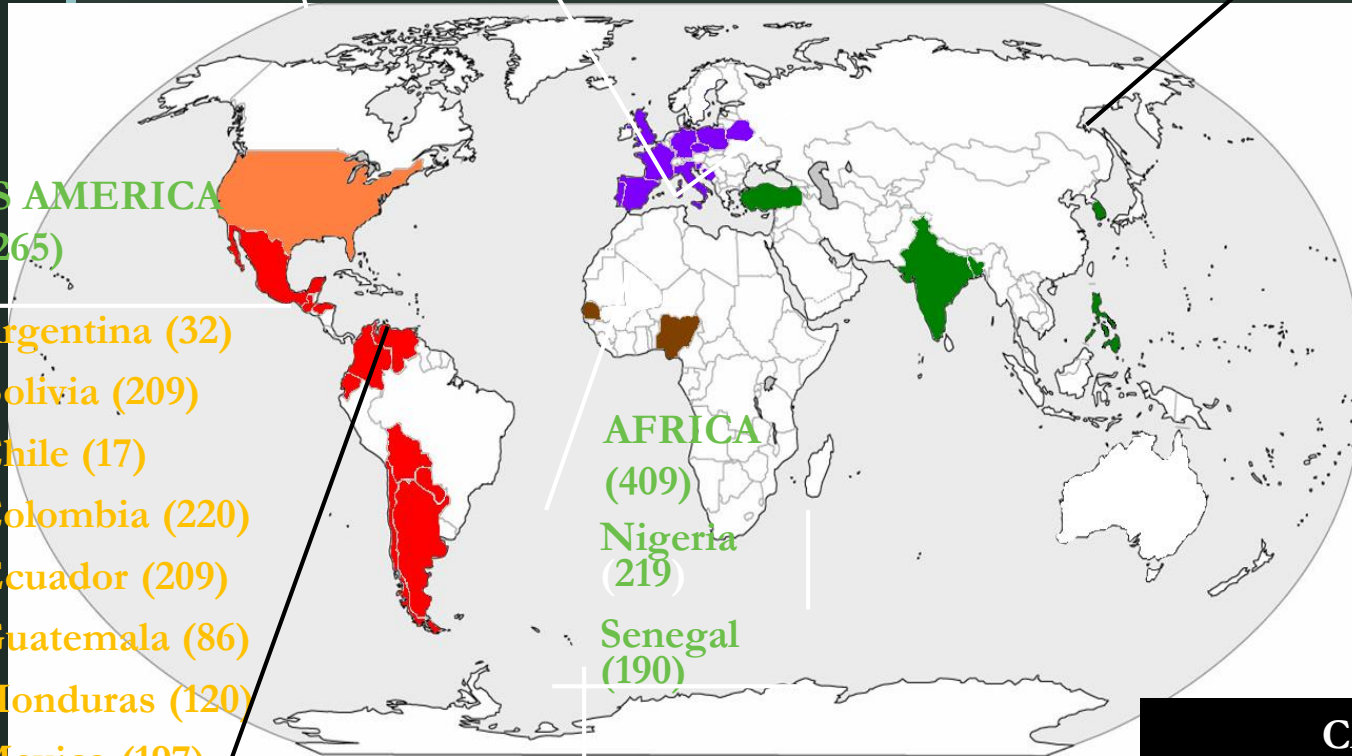
Venezuela (19)

AFRICA

(409)

Nigeria (219)

Senegal (190)



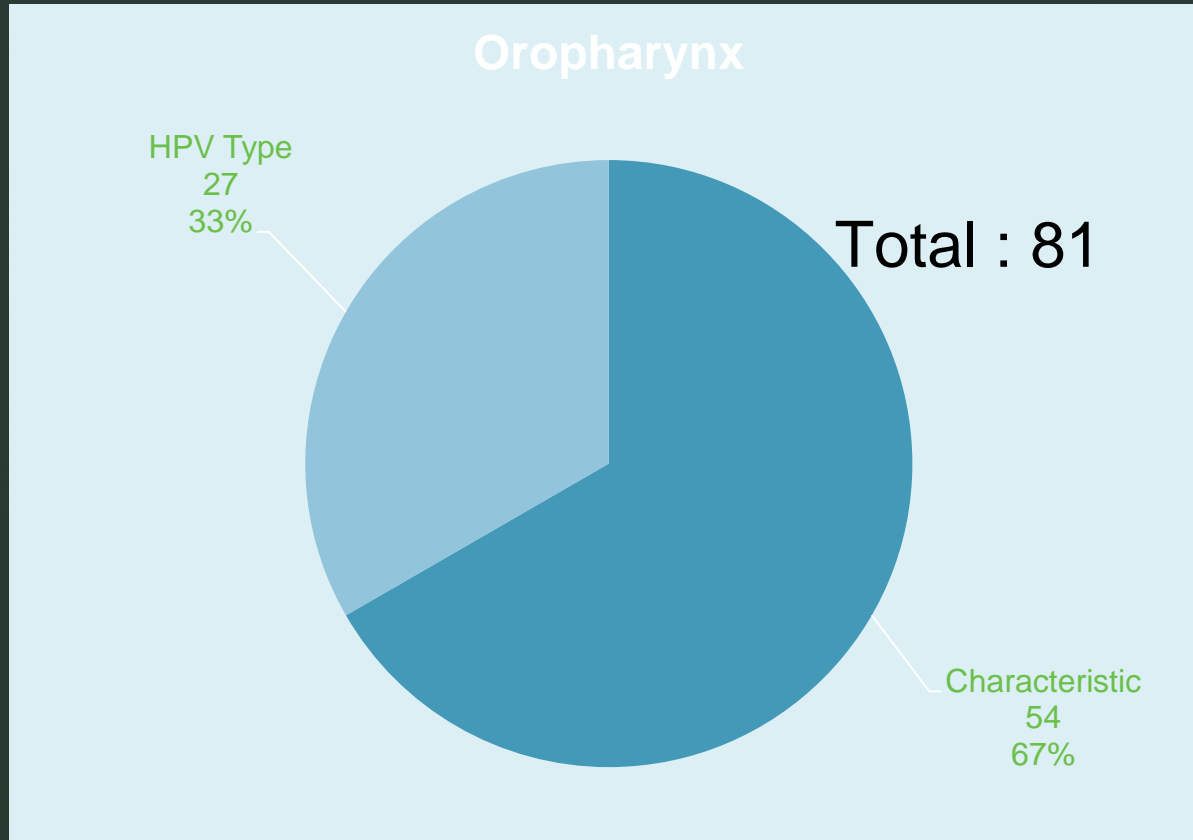
CASES FROM 29 COUNTRIES

() Total CASES RECEIVED: 4,533

Methods

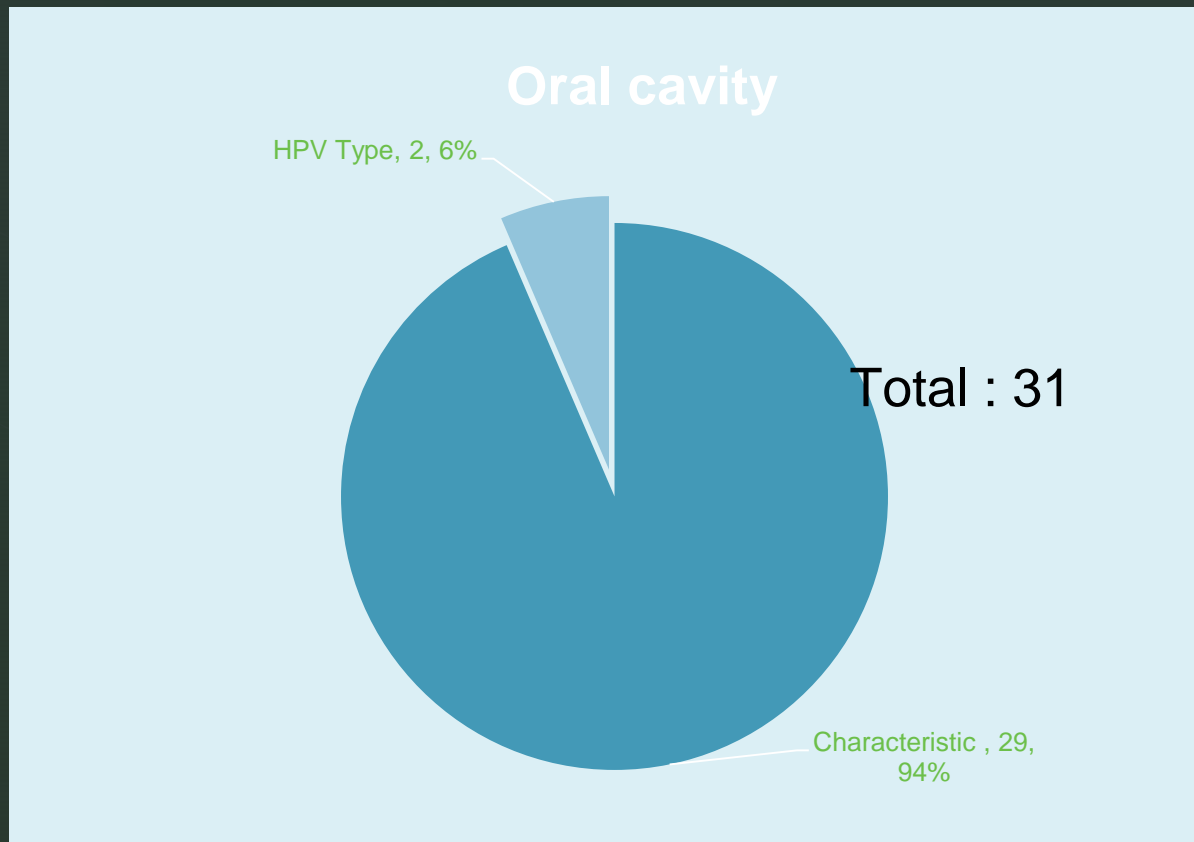
- histopathological evaluation
- DNA quality control, and detection. DNA/HPV
SPF-10 PCR/DEIA/LiPA₂₅
- Additional markers indicating transforming activity
E6*I mRNA, p16^{INK4a}

RESULTS - OROPHARYNX

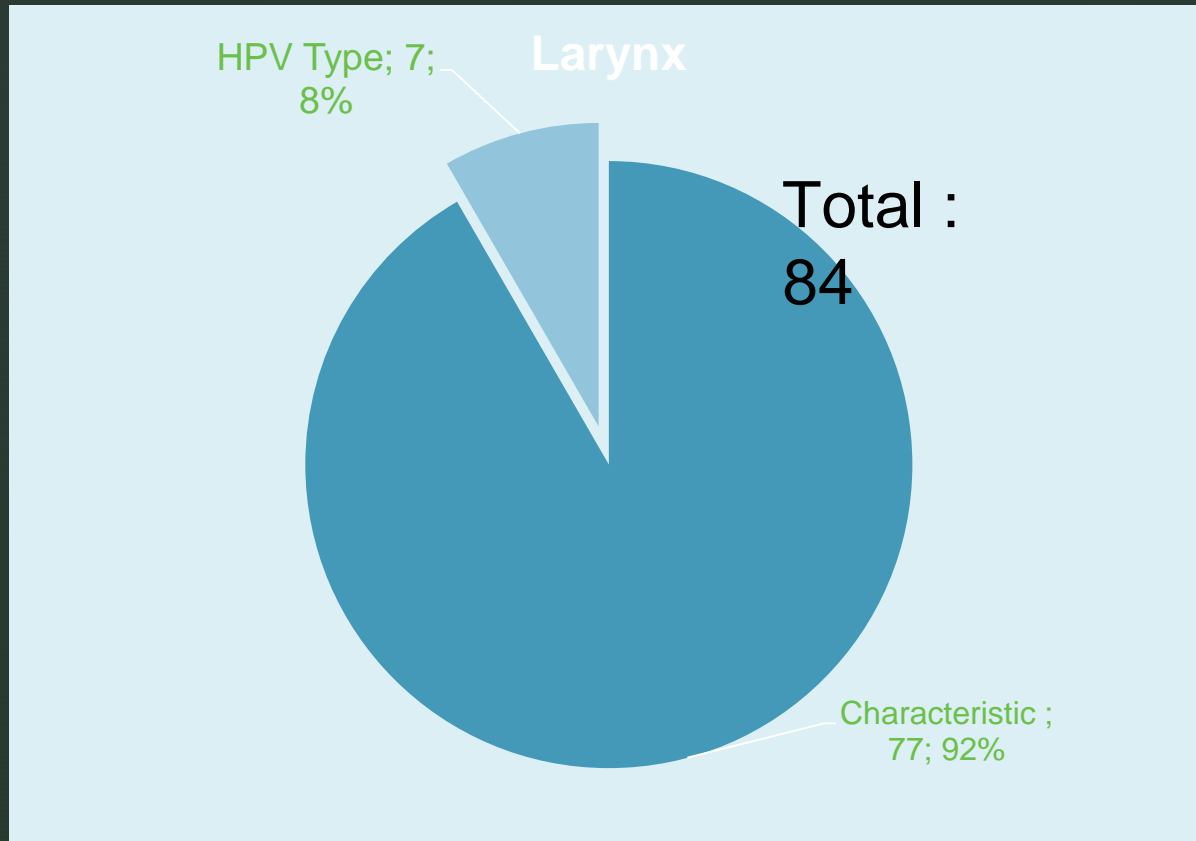


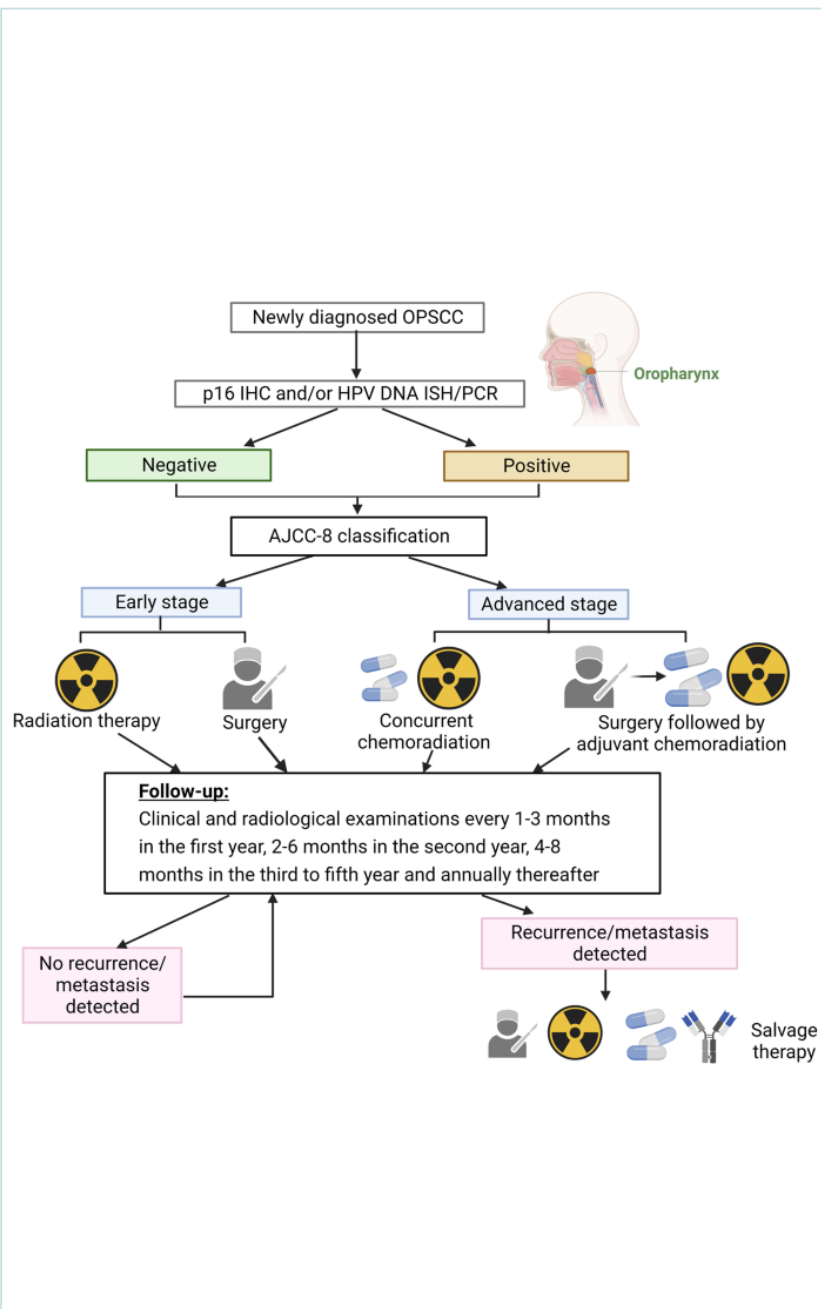
PALATINE TONSILS 14/22:63.6%

RESULTS – ORAL CAVITY



RESULTS - LARYNX






Early stage disease -

- has largely been replaced by less-invasive techniques
- transoral laser microsurgery (TLMS)
- transoral robotic surgery (TORS)



Treatment

- Improved prognosis and greater prevalence in younger individuals, numerous ongoing trials are examining the potential for treatment de-intensification
 - The substantially better prognosis of patients with HPV⁺ OPSCC compared to those with HPV⁻ OPSCC has been recognized in the American Joint Committee on Cancer TNM8 staging guidelines, which recommend stratification by HPV status to improve staging.
- 



Treatment Future

- standard treatment is associated with high toxicities and compromised quality-of-life
- de-escalating treatment for these patients
- recently completed clinical trials to de-intensify chemoradiation in unselected populations failed to demonstrate non-inferiority
- **Emergence of immunotherapies** (only anti-PD-1/PD-L1 antibodies have been approved for clinical use)

The incidence of human papillomavirus-associated oropharyngeal cancer (HPV+ OPSCC) is expected to continue to rise over the coming decades until the benefits of gender-neutral prophylactic HPV vaccination begin to become manifest.



Thank you for your attention.

