OESOPHAGEAL CANCER

Professor Florian Lordick
University Cancer Centre Leipzig, Germany
OESOPHAGEAL CANCER

Learning objectives

Know about the epidemiology and prognosis
Know about the risk factors
Understand the pathogenesis of Barrett's cancer
Be aware of differences in biology of squamous and adenocarcinoma
What diagnostic and staging procedures are needed?
Treatment according to guidelines
Know the rules for treatment of early stages
Know the data for treatment of locally advanced stages
  - Neoadjuvant therapy and perioperative management
  - Definitive radiochemotherapy
  - Salvage surgery
Know how to manage advanced disease
EPIDEMIOLOGY

Incidence  Seventh worldwide: 572,000 new cases / year

Mortality  Sixth worldwide: 509,000 deaths / year
           signifying that oesophageal cancer will be responsible for an estimated 1 in every 20 cancer deaths in 2018

Gender  70% of cases occur in men

Histology  Squamous cell carcinoma
           Adenocarcinoma
           Others <5% (small cell cancer, neuroendocrine, sarcoma,…)

Nota bene  Marked differences around the world!
           Increasing frequency of adenocarcinoma in the West
           Squamous cell cancer still leading in Asia & Africa

Distribution of cases and deaths for the 10 most common cancers in 2018
(proportion of total number of cases or deaths; nonmelanoma skin cancers are included in “other” category. Source: GLOBOCAN 2018)

Region-specific incidence age-standardised rates by sex for cancers of the oesophagus in 2018

Overall incidence trend in oesophageal adenocarcinoma (1973-2006)

Reprinted from Cancer Epidemiology Biomarkers & Prevention, Copyright 2010, 19(6), 1468–70, Pohl H, et al, Esophageal Adenocarcinoma Incidence: Are We Reaching the Peak?, with permission from AACR.
5-year survival over all stages is only 12%
RISK FACTORS

Squamous cell cancer

- Smoking
  - Gammon MD, J Natl Cancer Inst 1997
  - Vaughan TL, Cancer Epidemiol Biomarkers Prev 1995

- Alcohol
  - Gammon MD, J Natl Cancer Inst 1997
  - Vaughan TL, Cancer Epidemiol Biomarkers Prev 1995

Obesity

- Gastroesophageal reflux
  - Brown ML, J Natl Cancer Inst 1995

Adeno-carcinoma

- Lagergren J, Gut 2005
## DISEASE CHARACTERISTICS

<table>
<thead>
<tr>
<th></th>
<th>Adenocarcinoma</th>
<th>Squamous Cancer</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Distal esophagus and esophago-gastric junction</td>
<td>Proximal, mid-thoracic or distal esophagus</td>
</tr>
<tr>
<td><strong>Median age</strong></td>
<td>64 years</td>
<td>56 years</td>
</tr>
<tr>
<td><strong>Comorbidity</strong></td>
<td>- Obesity</td>
<td>- Malnutrition</td>
</tr>
<tr>
<td></td>
<td>- Metabolic syndrome</td>
<td>- Chronic obstructive lung disease</td>
</tr>
<tr>
<td></td>
<td>- Coronary heart disease</td>
<td>- Liver cirrhosis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Simultaneous lung / head and neck cancers and other alcohol-tobacco associated cancers</td>
</tr>
<tr>
<td><strong>Lymphatic spread</strong></td>
<td>Early (when the submucosal layer is reached by the tumour)</td>
<td>Even earlier than in adenocarcinoma</td>
</tr>
<tr>
<td><strong>Prognosis</strong></td>
<td>Poor</td>
<td>Very poor</td>
</tr>
</tbody>
</table>
Gradations of molecular subclasses of gastroesophageal carcinoma

The Cancer Genome Atlas Research Network. Nature. 2017;541:169-175. licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0 license)
http://creativecommons.org/licenses/by/4.0/
### Major subdivisions of gastroesophageal cancer

<table>
<thead>
<tr>
<th>Location</th>
<th>Subdivision</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oesophagus (164)</td>
<td>ESCC</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>UC</td>
<td>1</td>
</tr>
<tr>
<td>GEJ (165)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EAC</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>AC</td>
<td>98</td>
</tr>
<tr>
<td>Stomach (359)</td>
<td>Fundus/body (140)</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>Antrum/pylorus (143)</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Not specified (13)</td>
<td>141</td>
</tr>
<tr>
<td>Indeterminate</td>
<td></td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Abbreviations:**
- **AC:** adenocarcinoma
- **CIN:** Chromosomal instability
- **EAC:** oesophageal adenocarcinoma
- **EBV:** Epstein-Barr-Virus
- **ESCC:** oesophageal squamous cell cancer
- **GEJ:** gastroesophageal junction
- **GS:** genomically stable
- **MSI:** microsatellite instability
- **UC:** undifferentiated cancer

The Cancer Genome Atlas Research Network. Nature. 2017;541:169-175. licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) license: [http://creativecommons.org/licenses/by/4.0/](http://creativecommons.org/licenses/by/4.0/)
Similarity of oesophageal adenocarcinoma and CIN variant of gastric cancer

The Cancer Genome Atlas Research Network. Nature. 2017;541:169-175. licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0 license) http://creativecommons.org/licenses/by/4.0/
BARRETT’S OESOPHAGUS

Model of wounding and competitive replacement for development of Barrett’s Epithelium by chronic acid reflux

Diagrammatic representation of endoscopic Barrett’s oesophagus showing an area classified as C2M5. 

- **C**: extent of circumferential metaplasia; 
- **M**: maximal extent of the metaplasia (C plus a distal “tongue” of 3 cm); 
- **GEJ**: gastroesophageal junction

Endoscopic Barrett’s oesophagus showing an area classified as C2M5

BARRETT’S CARCINOGENESIS

Dynamic equilibrium and clonal stasis during carcinogenesis

BARRETT’S CARCINOGENESIS

BARRETT’S CARCINOGENESIS

Mucosa of gastroesophageal junction with oesophagitis

BE without dysplasia

BE with low-grade dysplasia

BE with high-grade dysplasia

Adenocarcinoma

0.5%

10%

40%

Conteduca V, et al. Int J Oncol 2012; 41:414-24. Histopathological pictures with courtesy of the Institute of Pathology, Leipzig University Medical Center, Germany
Algorithm according to the American College of Gastroenterology Guidelines
Management of nonnodular Barrett’s esophagus

*Although endoscopic eradication therapy is associated with a decreased rate of progression, surveillance upper endoscopy at 1-year intervals is an acceptable alternative. The above schema assumes that the T1a esophageal adenocarcinoma (EAC) displays favorable characteristics for endoscopic therapy, including well-differentiated histology and lack of lymphovascular invasion.

EGD, esophagogastroduodenoscopy; HGD, high-grade dysplasia; LGD, low-grade dysplasia; PPI, proton pump inhibitor.

SCREENING AND PREVENTION

General population

Reflex disease GERD

Barrett/ Low grade IEN

High grade IEN

Early cancer

Invasive cancer

Screening in risk patients

Surveillance or intervention

Intervention

Patients at risk:
- Male
- >45 years old
- Visceral obesity
- Chronic reflux

GERD: gastroesophageal reflux; IEN: Intra-epithelial neoplasia.
Staging and medical assessment should include

- Clinical examination
- Blood count
- Liver and renal function tests
- Endoscopy (including upper aerodigestive tract in case of squamous cancer)
- CT scan of chest and abdomen

In candidates for surgical or endoscopic resection

- Endoscopic ultrasound to evaluate the T (and N) stage

When available

- Positron emission tomography (PET) is helpful to identify distant metastases

Endoscopy showing an exophytic tumour in the distal oesophagus with Barrett’s metaplasia. EUS (endoscopic ultrasound) showing infiltration of the entire oesophageal wall (uT3)
COMPUTED TOMOGRAPHY

CT showing thickened wall in the distal oesophagus and an enlarged paracoeliac lymph node

Courtesy of Prof. F. Lordick
FDG-PET showing increased glucose update in the distal oesophagus and paracoeliac lymph nodes, suspicious of malignancy

Courtesy of Prof. F. Lordick
Limited disease (cT1-T2 cN0 M0)

Locally advanced disease (cT3-T4 or cN1-3 M0)

Squamous cell cancer

- Neoadjuvant chemoradiotherapy
- Restaging (exclusion of M1)
- Resection

Definitive chemoradiotherapy
- Follow-up (every 3 months)
- Salvage resection

Perioperative chemotherapy
- Restaging (exclusion of M1)
- Resection

Adenocarcinoma

- Neoadjuvant chemoradiotherapy
- Restaging (exclusion of M1)
- Resection

Endoscopic mucosal resection for T1a N0

Limited disease according to ESMO guidelines: cT1-2 N0 M0
Oesophagectomy
Open transthoracic or minimally invasive

Minimally invasive esophagectomy

Hybrid
Ivor Lewis (laparoscopy + thoracotomy)

Total
Ivor Lewis (laparoscopy + thoracoscopy)

# OESOPHAGECTOMY

## Hybrid minimally invasive oesophagectomy for oesophageal cancer

<table>
<thead>
<tr>
<th>End Points</th>
<th>Total trial Population (N=207)</th>
<th>Hybrid Minimally Invasive Oesophagectomy (N=103)</th>
<th>Open Oesophagectomy (N=104)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Primary end point</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Major complication at 30 days – no. (%)</td>
<td>104 (50)</td>
<td>37 (36)</td>
<td>67 (64)</td>
</tr>
<tr>
<td><strong>Secondary end points</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postoperative death – no. (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>At 30 days</td>
<td>3 (1)</td>
<td>1 (1)</td>
<td>2 (2)</td>
</tr>
<tr>
<td>At 90 days</td>
<td>10 (5)</td>
<td>4 (4)</td>
<td>6 (6)</td>
</tr>
<tr>
<td>Major pulmonary complication at 30 days – no./total no. (%) †</td>
<td>49/205 (24)</td>
<td>18/102 (18)</td>
<td>31/103 (30)</td>
</tr>
</tbody>
</table>

OESOPHAGECTOMY

OESOPHAGECTOMY

ESMO TREATMENT GUIDELINES

**Limited disease (cT1-T2 cN0 M0)**
- Squamous cell cancer
  - Neoadjuvant chemoradiotherapy
  - Restaging (exclusion of M1)
  - Resection\(^1,2\)

**Locally advanced disease (cT3-T4 or cN1-3 M0)**
- Adenocarcinoma
  - Definitive chemoradiotherapy
  - Follow-up (every 3 months)
  - Salvage resection\(^3\)

**cTNM staging (endoscopy, EUS, MS-CT, FDG-PET)**
- Functional assessment (symptoms, comorbidity, nutritional status, patient preferences)

SQUAMOUS CELL CANCER

Definitive chemoradiotherapy *versus* neoadjuvant CRTx plus surgery


**SQUAMOUS CELL CANCER**

Definitive chemoradiotherapy *versus* neoadjuvant CRTx plus surgery

**FRENCH FFCD9102**

- **Survival (%)**
  - Arm A (surgery)
  - Arm B (chemoradiation)

- **90-day mortality** 9.3% vs. 0.8%

**GERMAN**

- **Survival (%)**
  - 40 Gy + SURG
  - 46 Gy + SURG

- **Tx.-rel. mortality** 12.8% vs. 3.5%

---


SQUAMOUS CELL CANCER

Definitive chemoradiotherapy

USA INTERGROUP 0123 STUDY

**Standard:** Cisplatin + 5-Fluorouracil + Radiation Dose 50.4 Gray

**SQUAMOUS CELL CANCER**

Definitive chemoradiotherapy

- **Cisplatin-5FU x 4 + 50Gy (fr 2Gy)**
- **FOLFOX x 6 + 50Gy (fr 2Gy)**

Neoadjuvant chemoradiotherapy plus surgery: CROSS

Primary Endpoint: Overall Survival

N=363
T1N1M0
or
T2–3N0–1M0

AC*  
SCC**

Neoadjuvant R-CTX. 41,4 Gy: Carbo AUC2 + Paclitaxel 50mg/m² weekly RESECTION

*AC: Adenocarcinoma; **SCC: Squamous Cell Carcinoma.

SQUAMOUS CELL CANCER

Neoadjuvant chemoradiotherapy plus surgery: CROSS

*AC: Adenocarcinoma; **SCC: Squamous Cell Carcinoma.


SQUAMOUS CELL CANCER

Neoadjuvant chemoradiotherapy plus surgery: CROSS

49% complete remission (ypT0N0)

*AC: Adenocarcinoma; **SCC: Squamous Cell Carcinoma.

SQUAMOUS CELL CANCER

Salvage surgery after chemoradiotherapy

<table>
<thead>
<tr>
<th></th>
<th>SALV</th>
<th>NCRS</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>In-hospital mortality</td>
<td>8.4%</td>
<td>9.3%</td>
<td></td>
</tr>
<tr>
<td>Anastomotic leak rate</td>
<td>17.2%</td>
<td>10.7%</td>
<td>0.007</td>
</tr>
<tr>
<td>3-y-OS</td>
<td>43.3%</td>
<td>40.1%</td>
<td>0.542</td>
</tr>
<tr>
<td>3-y-DFS</td>
<td>39.2%</td>
<td>32.8%</td>
<td>0.232</td>
</tr>
</tbody>
</table>

High mortality (16% vs. 6%) in low vs. high volume centres
High mortality (28% vs. 4%) after > 55Gy radiation dose

SQUAMOUS CELL CANCER

Salvage surgery – ongoing trials

**NL SANO TRIAL**

- Inclusion
- nCRT
- CRE-I
- CRE-II
- cCR
- "Treatment allocation"

  - Surgery
  - Active surveillance

**FRANCE PRODIGE-32**

**ESOSTRATE FFCD-1401**

- Registration
- Assesment of the response 5-6 weeks after RCT

**A: Surgery**

**B: Monitoring**

(Salvage surgery in case of resectable recurrence)

- Translational research: Blood samples and biopsies sent to EPICNETEC
- If complete response: randomisation

---

Noordman BJ, et al. BMC Cancer. 2018; 18:142. distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/). https://clinicaltrials.gov/ct2/show/NCT02551458
ESMO TREATMENT GUIDELINES

Limited disease (cT1-T2 cN0 M0)
- Squamous cell cancer²
  - Neoadjuvant chemoradiotherapy
    - Restaging (exclusion of M1)
      - Resection²
  - Definitive chemoradiotherapy
    - Follow-up (every 3 months)
      - Salvage resection²

Locally advanced disease (cT3-T4 or cN1-3 M0)
- Adenocarcinoma⁴
  - Perioperative chemotherapy
    - Restaging (exclusion of M1)
      - Resection
  - Neoadjuvant chemoradiotherapy
    - Restaging (exclusion of M1)
      - Resection

ADENOCARCINOMA

Neoadjuvant chemoradiotherapy plus surgery: CROSS

*AC: Adenocarcinoma; **SCC: Squamous Cell Carcinoma.


ADENOCARCINOMA

NEO-AEGIS ongoing study (Ireland-UK)

Patients with cT2-3 N0-3, M0 adenocarcinoma of the esophagus or GEJ, based on CT-PET, EUS + laparoscopic staging

---

**RANDOMIZATION**

**ARM A (Modified MAGIC)**
- 3 cycles q21 of neo-adjuvant therapy
  - Epirubicin
  - Cisplatin or Oxaliplatin
  - 5-Fluorouracil or Capecitabine

**SURGERY**
- Epirubicin
- Cisplatin or Oxaliplatin
- 5-Fluorouracil or Capecitabine

**FOLLOW-UP**

**ARM B (CROSS)**
- 5 cycles q7 of neo-adjuvant therapy
  - Paclitaxel
  - Carboplatin + Radiotherapy
  - 5 weeks 41.4 Gy/23 fractions

**SURGERY**

**FOLLOW-UP**

**Primary Endpoint:**
Overall Survival

**Secondary Endpoints:**
- Clinical and pathological response rate
- Tumour Regression Grade
- Node positivity
- Post-operative Pathological staging
- Disease-free survival
- Toxicity
- Post-operative complications
- Health Related Quality of life

Reynolds JV, et al. BMC Cancer 2017; 17:401 distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/)
ADENOCARCINOMA

ESOPEC Ongoing Study (Germany)

Primary endpoint:
- Overall survival assessed with a minimum follow-up of 36 months

Secondary objectives:
- Progression-free survival
- Recurrence-free survival site of failure
- Postoperative morbidity/mortality
- Duration of hospitalisation
- Quality of life

Hoeppner J, et al. BMC Cancer 2016; 16: 503 distributed under the terms of the Creative Commons Attribution 4.0 International License (http://creativecommons.org/licenses/by/4.0/)
NUTRITIONAL CARE

Oesophageal cancer

Well nourished patients (weight loss < 10%)

- Oral suppletion during neoadjuvant therapy until 1 week preoperatively
- Oral IMPACT* 1 week preoperatively

1 week preoperatively

Surgery

Malnourished patients (weight loss ≥ 10%)

- PEG/PRG placement before starting neoadjuvant therapy
- Jejunostomy placement

PEG/PRG placement before starting neoadjuvant therapy

1 week preoperatively

Surgery

1 week postoperatively

Enteral IMPACT* 1 week preoperatively

Enteral IMPACT* 1 week postoperatively

Tube feeding according to status of patient

Minimum 8 weeks TF

2 weeks perioperatively IMPACT*

Several months TF

Physical fitness after a 5-week structured, endurance, training programme following neoadjuvant treatment prior to oesophagectomy or gastrectomy (N=20)

<table>
<thead>
<tr>
<th></th>
<th>Basal</th>
<th>Post-NAT (Pre-Training)</th>
<th>Post-Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workload (watts)</td>
<td>91 (8)</td>
<td>80 (7)</td>
<td>103 (9)*</td>
</tr>
<tr>
<td>VO₂ max (ml/kg/min)</td>
<td>17.8 (3)</td>
<td>15.3 (4)*</td>
<td>18.9 (4)*</td>
</tr>
<tr>
<td>Vₑ max (L/min)</td>
<td>46 (10)</td>
<td>44 (11)*</td>
<td>51 (10)*</td>
</tr>
<tr>
<td>HR max (beats/min)</td>
<td>130 (11)</td>
<td>136 (12)</td>
<td>135 (11)</td>
</tr>
<tr>
<td>VO₂/HR (ml/beats/min)</td>
<td>8.7 (2)</td>
<td>7.5 (3)*</td>
<td>9.2 (3)*</td>
</tr>
<tr>
<td>VO₂ AT (ml/kg/min)</td>
<td>10.8 (2)</td>
<td>9.2 (3)*</td>
<td>11.1 (2)*</td>
</tr>
<tr>
<td>Vₑ CO₂ (AT)</td>
<td>31 (2)</td>
<td>34 (3)</td>
<td>33 (3)</td>
</tr>
</tbody>
</table>

Mean (SD). * p<0.05 compared to previous stage

Recommendation 4: Management of advanced disease

a. Patients with metastatic oesophageal cancer can be considered for different palliative treatment options depending on the clinical situation. **External radiotherapy, single-dose brachytherapy, gastrostomy/jejunostomy or metal stent placement** may be considered [A=100% and V, B]

b. **Chemotherapy is indicated** for palliative treatment in selected patients, particularly for patients with adenocarcinoma who have a good performance status [A=100% and IIIB]

c. In squamous cell oesophageal cancer, **combination chemotherapy** is the preferred option in clinical practice for fit patients [A=100%]. BSC or palliative monotherapy should be considered for unfit patients [A=100% and IIB].
Recommendation 5: Personalised medicine
Trastuzumab–containing treatment is recommended for HER2-positive GEJ adenocarcinomas. It is an option for patients with HER2-positive pure oesophageal adenocarcinomas despite their rarity [A=100% and I, A]
ADVANCED DISEASE

Personalised medicine – Perspective

Keynote-028 - Pembrolizumab Phase-II: Overall response rate was 30% (95% CI, 13% to 53%); median duration of response was 15 months (range, 6 to 26 months)
**ADVANCED DISEASE**

Immunotherapy – Keynote-181 Randomised Controlled Trial

Kojima T et al., ASCO GI 2019, Abstract #2. By permission of Prof T. Kojima

---

**OS, %**

<table>
<thead>
<tr>
<th>Time, months</th>
<th>Events, n</th>
<th>HR(^a) (95% CI)</th>
<th>Median, mo (95% CI)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pembrolizumab</td>
<td>107</td>
<td>0.69 (0.52-0.93)</td>
<td>9.3 (6.6-12.5)</td>
<td>0.0074</td>
</tr>
<tr>
<td>Chemo</td>
<td>115</td>
<td>-</td>
<td>6.7 (5.1-8.2)</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\)Based on Cox regression model with treatment as a covariate stratified by region and histology.


---

**No. at risk**

<table>
<thead>
<tr>
<th></th>
<th>Pembrolizumab</th>
<th>Chemotherapy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>107</td>
<td>115</td>
</tr>
<tr>
<td>0</td>
<td>107</td>
<td>115</td>
</tr>
<tr>
<td>2</td>
<td>100</td>
<td>102</td>
</tr>
<tr>
<td>4</td>
<td>86</td>
<td>76</td>
</tr>
<tr>
<td>6</td>
<td>68</td>
<td>61</td>
</tr>
<tr>
<td>8</td>
<td>59</td>
<td>48</td>
</tr>
<tr>
<td>10</td>
<td>49</td>
<td>31</td>
</tr>
<tr>
<td>12</td>
<td>45</td>
<td>23</td>
</tr>
<tr>
<td>14</td>
<td>33</td>
<td>19</td>
</tr>
<tr>
<td>16</td>
<td>29</td>
<td>14</td>
</tr>
<tr>
<td>18</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>20</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>22</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>24</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>26</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>28</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>30</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>34</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

---

Kojima T et al., ASCO GI 2019, Abstract #2. By permission of Prof T. Kojima
Summary

- Oesophageal cancer is a common global disease with a poor prognosis
- Risk factors are smoking and alcohol drinking for squamous cell cancer (SCC)
- Barrett’s epithelium is a first step in the pathogenesis of adenocarcinoma
- Oesophageal SCC and adenocarcinoma (AC) are two biologically distinct cancers
- Sophisticated staging is needed to select the right patients for surgery
- Guidelines recommend multimodal treatment for locally advanced stages
- SCC: Definitive chemoradiotherapy (CRTx) or neoadjuvant CRTx + surgery
- AC: Neoadjuvant CRTx or CTx + surgery
- Perioperative care includes nutrition support and prehabilitation
- New ESMO guidelines: recommendations for management of advanced disease
- Immunotherapy for PD-L1 expressing tumours at the horizon
THANK YOU FOR YOUR ATTENTION

Greetings from Leipzig, Germany

University Cancer Centre Leipzig (UCCL)

Florian Lordick