40.1 Introduction

Guidelines are valuable sources to decide when and how to perform prophylactic surgery. Besides, they ensure to protect the patient from both overtreatment and delayed treatment in clinical or surgical practice, standardize the service provided, and also protect the physician/surgeon legally and ethically.

Latest and current guidelines on all fields of general surgery, which include recommendations regarding prophylactic, preventive and risk-reducing surgery, are going to be introduced and reviewed in this chapter (Table 40.1).

40.2 Thyroid and Parathyroid

The latest guideline published by the American Thyroid Association (ATA) on thyroid nodules and differentiated thyroid cancer was in 2015. Major concerns regarding prophylactic surgery were generally about the neck dissection. The authors evaluated the potential benefits and the necessity of prophylactic ipsilateral or bilateral, central-compartment, and lateral-compartment neck dissection [1]. The revised version of ATA guidelines for the management of medullary thyroid carcinoma, which was also published in 2015, adverted five criteria for prophylactic surgery in patients with hereditary cancer syndromes. Ultimately, they concluded that MEN2A and MEN2B met each criterion [2].

In the British thyroid association guidelines for the management of thyroid cancer from 2014, recommendations for prophylactic thyroidectomy in MEN syndromes and prophylactic neck dissection in differentiated thyroid cancers and medullary thyroid cancer were published [3]. They also emphasized that the risk of injury to the recurrent laryngeal nerves and parathyroid glands associated with prophylactic surgery should be considered.

Italian consensus on diagnosis and treatment of differentiated thyroid cancer, which includes joint statements of six Italian societies, was published in 2018. It also stated the same issues again as previous counterparts [4].

Chinese Association of Thyroid Oncology (CATO) and Chinese Anti-Cancer Association published Chinese expert consensus and guidelines for the diagnosis and treatment of papillary thyroid microcarcinoma in 2016. Unlike their western counterparts, they graded the recommendations from “A” to “I.” However, they gave
| Guidelines | Year | Country/Region |
|------------|------|----------------|
| **Thyroid and parathyroid** | | |
| BTA guidelines for the management of thyroid cancer | 2014 | UK |
| ATA guidelines on thyroid nodules and differentiated thyroid cancer | 2015 | USA |
| ATA guidelines for the management of medullary thyroid carcinoma | 2016 | China |
| AACE guidelines for definitive management of primary hyperparathyroidism | 2016 | USA |
| Italian consensus on diagnosis and treatment of differentiated thyroid cancer: Joint statements of six Italian societies | 2018 | Italy |
| NCCN clinical practice guidelines in thyroid cancer | 2019 | USA |
| AAES guidelines for the definitive surgical management of thyroid disease in adults | 2020 | USA |
| **Breast** | | |
| Manchester guidelines for contralateral risk-reducing mastectomy | 2015 | UK |
| ESMO clinical practice guidelines for cancer prevention and screening in BRCA mutation carriers and other breast/ovarian hereditary cancer syndromes | 2016 | Europe |
| ASBrS consensus guideline on genetic testing for hereditary breast cancer | 2019 | USA |
| NCCN clinical practice guidelines in oncology: Breast cancer | 2020 | USA |
| NCCN genetic/familial high-risk assessment: Breast, ovarian, and pancreas | 2020 | USA |
| **Adrenal glands** | | |
| AACE and AAES medical guidelines for the management of adrenal incidentalomas | 2009 | USA |
| European Society of Endocrinology clinical practice guideline, in collaboration with the European-adrenal network for the study of adrenal tumours | 2016 | Europe |
| Congenital adrenal hyperplasia due to steroid 21-hydroxylase deficiency: An endocrine society clinical practice guideline | 2018 | USA |
| **Upper gastrointestinal tract** | | |
| AGA medical position statement on the management of Barrett’s esophagus | 2011 | USA |
| ACG clinical guideline: Genetic testing and management of hereditary gastrointestinal-tract cancer syndromes | 2015 | USA |
| Hereditary diffuse gastric cancer: Updated clinical guidelines with an emphasis on germline CDH1 mutation carriers | 2015 | International |
| Diagnosis and management of nonvariceal upper gastrointestinal hemorrhage: ESGE guideline | 2016 | Europe |
| ASMBS pediatric bariatric surgery guidelines | 2018 | USA |
| European guidelines on achalasia: United European gastroenterology and European Society of Neurogastroenterology and motility recommendations | 2020 | Europe |
| Reference                                                                 | Year | Location         |
|--------------------------------------------------------------------------|------|------------------|
| NCCN esophageal and esophagogastric junction cancers                      | 2020 | USA              |
| NCCN gastric cancer                                                      | 2020 | USA              |
| **Hepatobiliary and pancreatic system***                                 |      |                  |
| International consensus guidelines 2012 for the management of IPMN and MCN of the pancreas | 2012 | International    |
| European experts consensus statement on cystic tumors of the pancreas    | 2013 | Europe           |
| Clinical practice guidelines for the management of biliary tract cancers  | 2015 | Japan            |
| AGA institute guideline on the diagnosis and management of asymptomatic neoplastic pancreatic cysts | 2015 | USA              |
| EASL clinical practice guidelines on the prevention, diagnosis, and treatment of gallstones | 2016 | Europe           |
| EASL clinical practice guidelines on the management of benign liver tumors | 2016 | Europe           |
| Liver trauma: What current management?                                   | 2018 | Morocco          |
| International consensus guidelines for surgery and the timing of intervention in chronic pancreatitis | 2019 | International    |
| NCCN pancreatic adenocarcinoma                                           | 2020 | USA              |
| NCCN clinical practice guidelines: Hepatobiliary cancers                 | 2020 | USA              |
| Liver trauma: WSES 2020 guidelines                                       | 2020 | International    |
| **Lower gastrointestinal tract***                                        |      |                  |
| Revised guidelines for the clinical management of Lynch syndrome (HNPCC): Recommendations by a group of European experts | 2013 | Europe           |
| ASCRS practice parameters for the surgical treatment of ulcerative colitis | 2014 | USA              |
| ECCO-ESCP consensus on surgery for Crohn’s disease                      | 2017 | Europe           |
| ASCRS clinical practice guidelines for the surgical treatment of patients with Lynch syndrome | 2017 | USA              |
| JSCCR guidelines 2016 for the clinical practice of hereditary colorectal cancer (translated version) | 2018 | Japan            |
| NCCN guidelines insights: Genetic/familial high-risk assessment: Colorectal | 2019 | USA              |
| **Abdominal wall surgery***                                              |      |                  |
| EHS guidelines on the treatment of inguinal hernia in adult patients      | 2009 | Europe           |
| ASCRS: Clinical practice guidelines for ostomy surgery                   | 2015 | USA              |
| HerniaSurge Group. International guidelines for groin hernia management  | 2018 | International    |

*BT A British Thyroid Association, UK United Kingdom, ATA American Thyroid Association, USA United States of America, CATO Chinese Association of Thyroid Oncology, AAES American Association of Endocrine Surgeons, NCCN National Comprehensive Cancer Network, ESMO European Society of Medical Oncology, ASBrS American Society of Breast Surgeons, ACE American Association of Clinical Endocrinologists, AGA American Gastroenterological Association, ACG American College of Gastroenterology, ESGE European Society of Gastrointestinal Endoscopy, ASMBS The American Society for Metabolic and Bariatric Surgery Pediatric Committee, IPMN intraductal papillary mucinous neoplasia, MCN mucinous cystic neoplasm, EASL European Association for the Study of the Liver, WSES: World Society of Emergency Surgery, ASCRS American Society of Colon and Rectal Surgeons, ECCO European Crohn’s and Colitis Organisation, ESCP European Society of Coloproctology, EHS European Hernia Society*
place to the same issues, such as prophylactic central and lateral neck lymph node dissection, in papillary thyroid microcarcinoma [5].

In the latest version (September 2019) of National Comprehensive Cancer Network (NCCN) clinical practice guidelines in thyroid cancer, on the other hand, the recommendations and algorithm regarding prophylactic surgery were only shaped around medullary thyroid cancer [6].

The American Association of Endocrine Surgeons (AAES) published a guideline for the definitive surgical management of thyroid disease in adults in 2020. They also evaluated the previously mentioned topic and additionally gave place to prophylactic surgery in syndromic familial nonmedullary thyroid cancers, such as familial adenomatous polyposis (FAP), Cowden syndrome, Carney complex, etc. [7].

In terms of prophylactic surgery in parathyroid disorders, the sources are quite limited compared to thyroid disorders. In 2016, guidelines for definitive management of primary hyperparathyroidism of AAES prophylactic neck dissection in parathyroid carcinoma were discussed [8].

### 40.3 Breast

Prophylactic mastectomy was given a place in the latest version of the NCCN clinical practice guidelines in breast cancer. Eventually, the readers were referred to two discrete guidelines: 2019 Breast Cancer Risk Reduction and 2020 Genetic/Familial High-Risk Assessment: Breast, Ovarian, and Pancreatic [9]. These two guidelines comprise the identification of risk factors for breast cancer, indications for risk-reducing surgery, and the introduction of gene mutations related to breast cancer. This is a particular approach to each genetic condition, respectively [10, 11].

The American Society of Breast Surgeons (ASBrS) stated that risk-reducing mastectomy could be considered in BRCA1, BRCA2, PTEN, and TP53 in their 2019 consensus guideline on genetic testing for hereditary breast cancer [12].

European Society of Medical Oncology (ESMO) published its clinical practice guidelines for cancer prevention and screening in BRCA mutation carriers and other breast/ovarian hereditary cancer syndromes in 2016. This guideline included recommendations on bilateral risk-reducing surgery in BRCA1/2 mutation carriers, contralateral risk-reducing surgery in patients with previous breast cancer, and preventive surgery for specific mutations [13].

Basu et al. (2015) devised a five-step process, including history taking, calculating contralateral breast cancer risk, cooling-off period/counseling, multidisciplinary assessment, and consent using 2015 Manchester guidelines for contralateral risk-reducing mastectomy. They created a formula to calculate the lifetime risk of contralateral breast cancer and stratified breast cancer patients into different risk groups [14].

### 40.4 Adrenal Glands

The data about the indications of the prophylactic surgery of the adrenal glands is very limited in the literature. In the clinical practice guideline published in 2018 by endocrine society and its cosponsoring associations, place of prophylactic adrenalectomy in individuals with congenital adrenal hyperplasia was discussed [15].

European Society of Endocrinology clinical practice guideline, in collaboration with the European network for the study of adrenal tumors in 2016, recommended the surgery in asymptomatic patients (nonfunctioning) with unilateral incidental adrenal masses with radiological findings suspicious of malignancy [16]. They also suggested adrenalectomy if the lesion enlarges by more than 20% (in addition to at least a 5 mm increase in maximum diameter) during the follow-up. American Association of Clinical Endocrinologists and American Association of Endocrine Surgeons Medical Guidelines for the Management of Adrenal Incidentalomas, on the other hand, accepted the size of the lesion as a criterion for surgery in a nonfunctioning adrenal tumor. Therefore, surgery was recommended to be considered in nonfunctioning incidentalomas ≥4 cm [17]. These approaches can also be
assessed under the concept of “prophylactic surgery,” since they are performed in asymptomatic cases with no definite diagnosis of a malignant condition.

### 40.5 Upper Gastrointestinal Tract

The place of antireflux surgery in Barrett’s esophagus has been the subject of the guidelines. American Gastroenterological Association (AGA) in 2011 recommended attempts to eliminate esophageal acid exposure for the prevention of esophageal adenocarcinoma. However, it was also stated that antireflux surgery was not more effective than medical therapy in gastroesophageal reflux disease for the prevention of cancer in Barrett’s esophagus [18]. The latest NCCN guideline on esophageal cancer did not include prophylactic esophagectomy [19]. Achalasia is another benign entity of esophagus, which eventually becomes symptomatic before being diagnosed. Although the primary aim of the treatment in achalasia is symptomatic relief, treating achalasia has additional benefits, such as preventing progression to end-stage disease and carcinogenesis [20].

In 2020, Japanese gastric cancer treatment guidelines again emphasized the importance of not performing prophylactic splenectomy for advanced gastric cancer in the upper-third stomach, which does not invade the greater curvature, even for the dissection of number 10 and 11 lymph nodes [21]. On the other hand, NCCN in 2020 recommended prophylactic total gastrectomy and splenectomy in \(CDH1\) mutation carriers [22].

Monahan et al. (2020) indicated whether prophylactic gastrectomy was required in patients with juvenile polyposis syndrome. They could not make any recommendations regarding that since there was no adequate evidence in the literature, except a series of 42 patients, in which two had undergone prophylactic gastrectomy for benign gastric polyp burden [23].

In 2015, the eighth workshop of the international gastric cancer linkage consortium stated the vital importance of prophylactic gastrectomy in \(CDH1\) mutation carriers, however, could not introduce an optimal timing for the procedure [24]. American College of Gastroenterology (ACG), in the same year, pointed out the importance of identification of the borders of both esophageal and duodenal during the prophylactic gastrectomy, since a case of gastric cancer after prophylactic gastrectomy had been reported [25].

In terms of benign conditions, prophylactic coagulation of visible vessels using hemostatic forceps or endoclips immediately after the resection was offered to reduce the risk of delayed bleeding after endoscopic mucosal resection/endoscopic submucosal dissection [26].

Bariatric surgery also has several benefits, which can be accepted as preventive. American Society for Metabolic and Bariatric Surgery (ASMBS) in 2018 recommends bariatric surgery, which will lead improvement in cardiovascular and metabolic markers besides the weight loss, in adolescents with BMI \(\geq 40\) kg/m\(^2\) or 140% of the 95th percentile and without comorbid diseases [27].

### 40.6 Hepatobiliary and Pancreatic System

Approach to asymptomatic gallstones and indications for prophylactic cholecystectomy was detailed by the European Association for the Study of the Liver (EASL) in 2016 [28]. The latest version of the NCCN clinical practice guidelines in hepatobiliary cancers accepts adenomyomatosis as a potential risk for developing gallbladder cancer [29]. 2020 NCCN guidelines on hepatobiliary cancers included prophylactic cholecystectomy in high-risk patients for gallbladder cancer and prophylactic port-site resection in gallbladder cancers [29].

The place of prophylactic gastrojejunostomy in pancreatic adenocarcinoma was mentioned in [30]. In patients who are found to have an unresectable disease during the abdominal exploration, prophylactic gastrojejunostomy was recommended if a future gastric outlet obstruction is anticipated. In terms of pancreatic cysts, AGA provided a conditional recommendation,
suggesting that patients with solid components and dilated bile duct or dubious features on endoscopic ultrasound or biopsy should undergo risk-reducing surgery [31]. Older guidelines determined cyst size ≥3 cm, thickened cyst walls, pancreatic duct 5–9 mm, nonenhancing cyst walls, abrupt change caliber PD with distal pancreatic atrophy, recurrent pancreatitis, rapidly increasing size, and elevated serum cancer antigen (CA) 19–9 as relative indications for surgery [32, 33].

Prophylactic surgery in chronic pancreatitis has taken place in the latest 2020 international consensus guidelines for surgery and the timing of intervention in chronic pancreatitis [34]. Patients with hereditary chronic pancreatitis were stated to have a high risk of pancreatic cancer that prophylactic resection can be considered. In addition, early surgery, which can be interpreted as a prophylactic intervention, was reported to be more beneficial in improving long-term quality of life compared to surgery in a more advanced stage of chronic pancreatitis.

In 2015, the Japanese society of hepatobiliary pancreatic surgery published the second edition of clinical practice guidelines for the management of biliary tract cancers. This guideline covered cholecystectomy and excision of the common bile duct in patients with pancreaticobiliary maljunction in terms of prophylactic surgery [35].

In terms of benign liver tumors, EASL guidelines (2016) suggested a multidisciplinary assessment for hemangiomas accompanied by Kasabach-Merritt syndrome and cases with asymptomatic focal nodular hyperplasia when the diagnosis is not firmly established with imaging in order to decide the necessity for surgical resection. Besides, surgical resection is also recommended in hepatocellular adenomas larger than 5 cm for eliminating the risk of malignant transformation [36].

### 40.7 Lower Gastrointestinal Tract

Monahan et al. (2020) published the latest guideline about colorectal diseases, subjected the management hereditary colorectal cancer (CRC) [23]. Colonoscopic surveillance is recommended to evaluate the adenoma burden and distribution, which can be useful for the timing of and types of prophylactic surgery in patients with FAP. Since CRC development is inevitable in these patients, total prophylactic colectomy is recommended to be planned at a time that is suitable to the patient based on the risk of cancer as assessed colonoscopically. 2019 NCCN guidelines also stated that prophylactic proctocolectomy was usually indicated for FAP in the second decade of life [37].

American Society of Colon and Rectal Surgeons (ASCRS) in 2017 recommended total prophylactic colectomy strongly in individuals with Lynch syndrome who develop colon cancer [38].

2016 guidelines for the clinical practice of hereditary colorectal cancer of Japanese Society for Cancer of the Colon and Rectum (JSCCR) recommended prophylactic colectomy/proctocolectomy in patients with FAP in their 20s [39]. However, the same guidelines did not reach a consensus on the usefulness of prophylactic colectomy in Lynch syndrome.

In 2015, ACG clinical guidelines on genetic testing and management of hereditary gastrointestinal cancer syndromes also recommended similar issues. Additionally, they highlighted the option of prophylactic colectomy in mutation carriers who have an endoscopically normal colon instead of surveillance. Indications for prophylactic surgery were stated as polyps >10 mm diameter, polyps with high-grade dysplasia, marked increases in polyp number from one exam to the next, and symptoms [25].

Prophylactic hysterectomy and bilateral oophorectomy in Lynch syndrome have been discussed in the guidelines since they are preventive for endometrial and ovarian cancer. 2019 NCCN genetic/familial high-risk assessment for CRC recommended considering prophylactic hysterectomy and bilateral salpingo-oophorectomy in patients with Lynch syndrome [37]. Vasen et al. (2013) recommended discussing prophylactic hysterectomy and bilateral oophorectomy as an option with the patients who completed fertility and had scheduled surgery for colorectal cancer [40].
In terms of inflammatory bowel diseases (IBD), there are also several guidelines subjecting prophylactic surgery. ECCO-ESCP consensus in 2017 reported to consider proctocolectomy in medically fit patients when colorectal cancer or high-grade dysplasia is detected in Crohn’s colitis. Furthermore, preventive stricturoplasty was not recommended in diseased segments, which are detected intraoperatively without assessing the luminal diameter [41].

ASCRS in 2014 published practice parameters for the surgical treatment of ulcerative colitis and recommended total proctocolectomy or surveillance endoscopy for patients with UC and low-grade dysplasia [42].

40.8 Abdominal Wall Surgery

In 2018 international guidelines for groin hernia management, approach to inguinal nerves was subjected in terms of prophylactic surgery by searching the answers to the questions regarding whether the resections of ilioinguinal, iliohypogastric, and genital branch of genitofemoral nerves may contribute to reducing chronic pain incidence. No recommendations could be made since the literature is quite limited. However, pragmatic resection was stated to be a reasonable approach to an injured nerve or a nerve that interferes with mesh position. The other topic mentioned in this guideline regarding prophylactic surgery was the necessity of prophylactic mesh repair on the contralateral side in older male patients with recurrent inguinal hernia. This topic also could not get any recommendations, since there is not enough scientific evidence [43].

European Hernia Society (EHS) released its latest guidelines on parastomal hernia in 2017. The main inference of that guideline was a strong recommendation about using a prophylactic synthetic nonabsorbable mesh upon the construction of an end colostomy. However, other types of stomas did not receive such a recommendation [44]. Regarding prophylactic interventions during ostomy construction, ASCRS in 2015 also recommended the placement of lightweight polypropylene at the time of permanent ostomy construction to decrease parastomal hernia rates [45].

In 2009, EHS published its guidelines on the treatment of inguinal hernia in adult patients. In terms of prophylactic resection, only prophylactic resection of the ilioinguinal nerve for reducing the risk of chronic pain after hernia surgery was included [46].

40.9 Trauma Surgery

The latest guidelines on liver trauma were released in 2020 by the World Society of Emergency Surgery (WSES). Hepatic artery and portal vein ligations (with intact hepatic artery) were attributed as considerable choices when effective bleeding control and successful vessel repair cannot be obtained [47]. Besides, prophylactic cholecystectomy is recommended in cases, where the right or common hepatic artery is ligated to avoid gallbladder necrosis.

40.10 Minimally Invasive Interventions

Many procedures previously performed with laparotomy have been replaced by endoscopic, radiological, and ultrasonographic interventional procedures with technological advances in imaging systems. The common purpose of all these procedures is to provide maximum benefit with minimal risk and minimally invasive procedures rather than more radical procedures, as in prophylactic surgery. Nonoperative follow-up, embolization, stenting, and drainage procedures are becoming more preferred in stable solid organ injuries, such as liver and spleen [47, 48]. Endoscopic methods provide eradication of Barrett epithelium, variceal bleeding, and peptic ulcer bleeding can be stopped and prevented, cancer precursor mucosal lesions can be successfully removed, and surgery is not required [18, 49]. In fact, it can be assumed that every method that provides an easier or more minimal procedure than a more radical surgery has a prophylac-
Prophylactic surgery for breast diseases was recommended to be deferred during the pandemic [50]. Surgery for the prophylactic indications for hereditary conditions of colorectal carcinomas was stated to be deferred 3 months [51]. Royal College of Surgeons also stated that all benign breast surgery, including risk-reducing surgery, could be deferred over 3 months during COVID-19 pandemic [52].

References

1. Haugen BR, Alexander EK, Bible KC, Doherty GM, Mandel SJ, Nikiforov YE, et al. 2015 American Thyroid Association management guidelines for adult patients with thyroid nodules and differentiated thyroid cancer: The American Thyroid Association Guidelines Task Force on thyroid nodules and differentiated thyroid cancer. Thyroid. 2016;26(1):1–133.
2. Wells SJ, Asa SL, Dralle H, Elisei R, Evans DB, Gagel RF, et al. Revised American Thyroid Association guidelines for the management of medullary thyroid carcinoma. Thyroid. 2015;25(6):567–610.
3. Perros P, Boelaert K, Colley S, Evans C, Evans RM, Gerrard Ba G, et al. Guidelines for the management of thyroid cancer. Clin Endocrinol. 2014;81(Suppl 1):1–122.
4. Pacini F, Basolo F, Bellantone R, Boni G, Cannizzaro MA, De Palma M, et al. Italian consensus on diagnosis and treatment of differentiated thyroid cancer: joint statements of six Italian societies. J Endocrinol Investig. 2018;41:849–76.
5. Gao M, Ge M, Ji Q, Cheng R, Lu H, Guan H, et al. 2016 Chinese expert consensus and guidelines for the diagnosis and treatment of papillary thyroid microcarcinoma. Cancer Biol Med. 2017;14(3):203–11.
6. Haddad RI, Nasr C, Bischoff L, Busaidy NL, Byrd D, Callender G, et al. NCCN guidelines insights: thyroid carcinoma, version 2.2018. J Natl Compr Cancer Netw. 2018;16:1429–40.
7. Patel KN, Yip L, Lubitz C, Grubbs E, Miller BS, Shen W, et al. The American Association of Endocrine Surgeons Guidelines for the definitive surgical management of thyroid disease in adults. Ann Surg. 2020;271(3):e21–93.
8. Wilhelm SM, Wang TS, Ruan DT, Lee JA, Asa SL, Duh QY, et al. The American Association of Endocrine Surgeons Guidelines for definitive management of primary hyperparathyroidism. JAMA Surg. 2016;151(10):959–68.
9. Gradishar WJ, Anderson BO, Abraham J, Alt R, Agnese D, Allison KH, et al. Breast cancer, version 3.2020, NCCN Clinical Practice Guidelines in Oncology. J Natl Compr Cancer Netw. 2020;18(4):452–78.
10. National Comprehensive Cancer Network. Breast cancer risk reduction (Version 1. 2019). https://www.nccn.org/professionals/physician_gls/pdf/breast_risk.pdf
11. National Comprehensive Cancer Network. Genetic/familial high-risk assessment: breast, ovarian, and pancreatic (Version 1. 2020). https://www.nccn.org/professionals/physician_gls/pdf/genetics_bop.pdf
12. Manahan ER, Kuerer HM, Sebastian M, Hughes KS, Boughey JC, Euhus DM, et al. Consensus guidelines on genetic testing for hereditary breast cancer from the American Society of Breast Surgeons. Ann Surg Oncol. 2019;26(10):3025–31.
13. Paluch-Shimon S, Cardoso F, Sessa C, Balmana J, Cardoso MJ, Gilbert F, et al. ESMO guidelines Committee prevention and screening in BRCA mutation carriers and other breast/ovarian hereditary cancer syndromes: ESMO clinical practice guidelines for cancer prevention and screening. Ann Oncol. 2016;27(Suppl 5):v103–10.
14. Basu NN, Ross GL, Evans DG, Barr L. The Manchester guidelines for contralateral risk-reducing mastectomy. World J Surg Oncol. 2015;13:237.
15. Speiser PW, Arlt W, Aachus RJ, Baskin LS, Conway GS, Merke DP, et al. Congenital adrenal hyperplasia due to steroid 21-hydroxylase deficiency: an Endocrine Society clinical practice guideline. J Clin End Met. 2018;103(11):4043–88.
16. Fassnacht M, Arlt W, Bancos I, Dralle H, Newell-Price J, Sahdev A, et al. Management of adrenal incidentalomas: European Society of Endocrinology Clinical Practice Guideline in collaboration with the European Network for the Study of Adrenal Tumors. Eur J Endocrinol. 2016;175:G1–G34.
17. Zeiger MA, Thompson GB, Duh QV, Hamrahian AH, Angelos P, Elaraj D, et al. American Association of Clinical Endocrinologists; American Association of Endocrine Surgeons. The American Association of Clinical Endocrinologists and American Association of endocrine Surgeons medical guidelines for the management of adrenal incidentalomas. Endocr Pract. 2009;15(Suppl 1):1–20.
18. Spechler SJ, Sharma P, Souza RF, Inadomi JM, Shaheen NJ. American Gastroenterological Association medical position statement on the management of Barrett’s esophagus. Gastroenterology. 2011;140(3):1084–91.
19. National Comprehensive Cancer Network. Esophageal and esophagogastric junction cancers (Version 2. 2020). https://www.nccn.org/professionals/physician_gls/pdf/esophageal.pdf
47. Coccolini F, Coimbra R, Ordonez C, Kluger Y, Vega F, Moore EE, et al. Liver trauma: WSES 2020 guidelines. World J Emerg Surg. 2020;15(1):24.

48. Tarchouli M, Elabsi M, Njoumi N, Essarghini M, Echarrab M, Chkoff MR. Liver trauma: what current management? Hepatobiliary Pancreat Dis Int. 2018;17(1):39–44.

49. Gralnek IM, Dumonceau JM, Kuipers EJ, Lanas A, Sanders DS, Kurien M, et al. Diagnosis and management of nonvariceal upper gastrointestinal hemorrhage: European Society of Gastrointestinal Endoscopy (ESGE) guideline. Endoscopy. 2015;47(10):a1–46.

50. American College of Surgeons. COVID-19 elective case triage guidelines for surgical care: Breast Cancer Surg [Internet]. 2020 [cited 12 May 2020]. https://www.facs.org/covid-19/clinical-guidance/elective-case/breast-cancer/.

51. American College of Surgeons. COVID-19 elective case triage guidelines for surgical care: Colorectal Cancer Surg. [Internet]. 2020 [cited 12 May 2020]. https://www.facs.org/covid-19/clinical-guidance/elective-case/colorectal-cancer/.

52. NHS England and Surgical Royal Colleges. Clinical guide to surgical prioritisation during the coronavirus pandemic. [Internet]. 2020 [cited 12 May 2020]. https://www.england.nhs.uk/coronavirus/wp-content/uploads/sites/52/2020/03/C0221-specialty-guide-surgical-prioritisation-v1.pdf.