



II BRAZILIAN CONSENSUS ON GASTRIC CANCER BY THE BRAZILIAN GASTRIC CANCER ASSOCIATION

II Consenso Brasileiro de Câncer Gástrico realizado pela Associação Brasileira de Câncer Gástrico

Leandro Cardoso **BARCHI**^{1,2}, Marcus Fernando Kodama Pertille **RAMOS**¹, André Roncon **DIAS**¹, Nelson Adami **ANDREOLLO**³, Antônio Carlos **WESTON**⁴, Laércio Gomes **LOURENÇO**⁵, Carlos Alberto **MALHEIROS**⁶, Paulo **KASSAB**⁶, Bruno **ZILBERSTEIN**^{1,2} and Consensus members*

ABSTRACT - Background: Since the publication of the first Brazilian Consensus on Gastric Cancer (GC) in 2012 carried out by the Brazilian Gastric Cancer Association, new concepts on diagnosis, staging, treatment and follow-up have been incorporated. **Aim:** This new consensus is to promote an update to professionals working in the fight against GC and to provide guidelines for the management of patients with this condition. **Methods:** Fifty-nine experts answered 67 statements regarding the diagnosis, staging, treatment and prognosis of GC with five possible alternatives: 1) fully agree; 2) partially agree; 3) undecided; 4) disagree and 5) strongly disagree. A consensus was adopted when at least 80% of the sum of the answers "fully agree" and "partially agree" was reached. This article presents only the responses of the participating experts. Comments on each statement, as well as a literature review, will be presented in future publications. **Results:** Of the 67 statements, there was consensus in 50 (74%). In 10 declarations, there was 100% agreement. **Conclusion:** The gastric cancer treatment has evolved considerably in recent years. This consensus gathers consolidated principles in the last decades, new knowledge acquired recently, as well as promising perspectives on the management of this disease.

HEADINGS: Gastric neoplasms. Gastric cancer. Gastrectomy. Lymphadenectomy. Consensus. Adenocarcinoma.

Central message

The II Brazilian Consensus on Gastric Cancer gathers consolidated concepts with new information and knowledge acquired recently, allowing better outcomes in the treatment of this disease.

Perspective

The II Brazilian Consensus on Gastric Cancer gathers the opinion of renowned Brazilian experts who work in the fight against gastric cancer. Among them are surgeons, oncologists, endoscopists and pathologists. The answers to the statements contained in this consensus, allow an update on the management of care for patients with gastric cancer.

RESUMO - Racional: Desde a publicação do primeiro Consenso Brasileiro sobre Câncer Gástrico em 2012 realizado pela Associação Brasileira de Câncer Gástrico (ABCG), novos conceitos sobre o diagnóstico, estadiamento, tratamento e seguimento foram incorporados. **Objetivo:** Promover uma atualização aos profissionais que atuam no combate ao câncer gástrico (CG) e fornecer diretrizes quanto ao manejo dos pacientes portadores desta afecção. **Métodos:** Cinquenta e nove especialistas responderam 67 declarações sobre o diagnóstico, estadiamento, tratamento e prognóstico do CG com cinco alternativas possíveis: 1) concordo plenamente; 2) concordo parcialmente; 3) indeciso; 4) discordo e 5) discordo fortemente. Foi considerado consenso a concordância de pelo menos 80% da soma das respostas "concordo plenamente" e "concordo parcialmente". Este artigo apresenta apenas as respostas dos especialistas participantes. Os comentários sobre cada declaração, assim como uma revisão da literatura serão apresentados em publicações futuras. **Resultados:** Das 67 declarações, houve consenso em 50 (74%). Em 10 declarações, houve concordância de 100%. **Conclusão:** O tratamento do câncer gástrico evoluiu consideravelmente nos últimos anos. Este consenso reúne princípios consolidados nas últimas décadas, novos conhecimentos adquiridos recentemente, assim como perspectivas promissoras sobre o manejo desta doença.

DESCRIPTORIOS - Neoplasias gástricas. Câncer gástrico. Gastrectomia. Linfadenectomia. Consenso. Adenocarcinoma.



www.facebook.com/abcdrevista



www.instagram.com/abcdrevista



www.twitter.com/abcdrevista

From the ¹Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil; ²Faculdade de Medicina São Leopoldo Mandic, Campinas, SP, Brasil; ³Universidade Estadual de Campinas, Campinas, SP, Brasil; ⁴Departamento de Cirurgia, Santa Casa de Porto Alegre, Porto Alegre, RS, Brasil; ⁵Universidade Federal de São Paulo, São Paulo, SP, Brasil; ⁶Departamento de Cirurgia, Santa Casa de São Paulo, São Paulo, SP, Brasil (¹Hospital das Clínicas, Faculty of Medicine, University of São Paulo, São Paulo, SP, Brazil; ²Faculty of Medicine São Leopoldo Mandic, Campinas, SP, Brazil; ³State University of Campinas, Campinas, SP, Brazil; ⁴Department of Surgery, Santa Casa de Porto Alegre, Porto Alegre, RS, Brazil; ⁵Federal University of São Paulo, São Paulo, SP, Brazil; ⁶Department of Surgery, Santa Casa de São Paulo, São Paulo, SP, Brazil).

How to cite this article: Barchi LC, Ramos MFKP, Dias AR, Andreollo NA, Weston AC, Lourenço LG, Malheiros CA, Kassab P, Zilberstein B. II Brazilian Consensus on Gastric Cancer by the Brazilian Gastric Cancer Association. ABCD Arq Bras Cir Dig. 2020;33(2):e1514. DOI: /10.1590/0102-672020190001e1514

Correspondence:

Leandro Cardoso Barchi
E-mail: leandrobarchi@hotmail.com

Financial source: none

Conflict of interest: none

Received for publication: 31/03/2020

Accepted for publication: 02/06/2020

INTRODUCTION

The incidence of gastric cancer (GC) has decreased around the world. Once the second most common type of cancer, currently CG is the fifth, after lung, breast, prostate and colorectal^{6,10,15}. Its incidence has dropped in the last 50 years due to the improvement in basic sanitation conditions, the use of refrigerators and consumption improvement of fresh fruits and vegetables and less salt intake, which was then widely used to preserve food. Other factors that contributed to this decline were the eradication of *Helicobacter pylori* and the screening intensification in several countries¹⁴.

Despite that, the mortality rate remains high. In 2018, CG recovered the second place in cancer deaths around the world, surpassing liver cancer again and placing only after lung cancer⁶. In Brazil, it is the third most common type among men and the fifth among women¹. According to the *Instituto Nacional do Câncer* (INCA) data, it is estimated that in the 2018/2019 biennium 21,290 new cases were diagnosed (13,540 in men and 7,750 in women) and about 15,000 deaths in 2017 related to it¹¹.

Adenocarcinoma is the most common histological type, accountable for about 90-95% of cases. Other less common malignant neoplasms of the stomach such as lymphoma (4%), neuroendocrine tumor (3%) and gastrointestinal stromal tumor (GIST) will not be addressed in this consensus^{5,9}.

Due to the continental dimension of Brazil, the incidence, management and prognosis varies widely according to the different regions of the country. In 2013, the first Brazilian Consensus on Gastric Cancer was published by the Brazilian Gastric Cancer Association (BGCA). This consensus aimed to unify and standardize the diagnosis and management of this condition²¹. Undoubtedly, the publication of this guideline made it possible to spread knowledge among medical professionals and, consequently, improve care and increase survival of these patients.

However, since the publication of the first Consensus, many aspects related to CG have changed^{16,17}. It lists: new TNM staging classification was implemented by the American Joint Committee on Cancer and Union for International Cancer Control (AJCC/UICC)¹⁸; the agreement between the West and the East on the pivotal role of D2 lymphadenectomy as a standard surgical treatment; the increasing role of multimodal therapy (neoadjuvant, perioperative and adjuvant chemotherapy/radiotherapy); the replacement of the systematic removal of the lymph node stations by the minimum number of 15 lymph nodes in the D2 lymphadenectomy; the indication for multivisceral resection (splenectomy); the endoscopic treatment in early GC and the role of minimally invasive surgery (laparoscopic or robotic) as an alternative surgical approach.

Thus, in view of the evidence gathered in recent years, it is opportune to update the Brazilian guidelines on CG through a new consensus. It is important to note that the guidelines hereby presented are not arbitrary and, therefore, it is up to each medical assistant/multidisciplinary team to adopt the best conduct according to local reality and the resource availability, as long as they are indeed beneficial to the patient.

METHODS

The Brazilian Gastric Cancer Association celebrated 20 years of its foundation in 1999. To solemnize this date, a commemorative day was held in Porto Alegre (RS) on August 16, when there was the opportunity to debate and present the results of this new Consensus. Three months before this event, a group of ABCG experts created 67 GC statements on diagnosis, staging, treatment and prognosis with five possible alternatives: 1) fully agree; 2) partially agree; 3) undecided; 4) disagree and 5) strongly disagree. These statements were sent to 59 specialists in GC treatment from all regions of Brazil (surgeons, oncologists, endoscopists, pathologists, etc.), embracing more than 20 universities institutions. The participants were able to mark only one answer. A consensus

was achieved when the sum of “fully agree” and “partially agree” reached at least 80%. This article presents only the responses of the participating experts. Comments on each statement, as well as a literature review, will be presented in future publications.

RESULTS

Of the 67 statements presented, a consensus was reached in 50 (74%). In 10 statements, there was 100% agreement.

Diagnosis statements

Statement 1

The main method of gastric cancer diagnosis is through an upper gastrointestinal endoscopy with biopsy. The endoscopic examination report must contain precise information regarding location (s) of the lesion (s), approximate size, extent, infiltration, distance from the esophageal-gastric transition and the pylorus, detailing the places where the biopsies were performed.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
98%	2%	0%	0%	0%	100%	100%

Statement 2

In case of high suspicion of gastric cancer and repeatedly negative biopsies collected by upper gastrointestinal endoscopy (including macrobiopsies), the diagnosis can be made through endoscopic resection or surgery.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
58%	36%	0%	2%	4%	100%	94%

Statement 3

Ultrasound upper endoscopy is not indicated when there are clear endoscopic signs that the cancer is invasive. It should be used when there is any doubt about the early aspect of GC. It allows to evaluate the degree of tumor invasion in the gastric wall and the presence of suspicious lymph nodes for metastases.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
72%	24%	2%	2%	0%	100%	96%

Statement 4

The main staging method is computed tomography of the chest, abdomen and pelvis.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
90%	10%	0%	0%	0%	100%	100%

Statement 5

Positron emission tomography (PET-CT) and nuclear magnetic resonance (MRI) should be used only in selected cases.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
92%	8%	0%	0%	0%	100%	100%

Statement 6

PET-CT can be used in well-differentiated tumors or in the proximal third.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
44%	30%	6%	16%	4%	100%	74%

Statement 7

Staging laparoscopy should be performed in cases where there is uncertainty in computed tomography regarding the presence of peritoneal carcinomatosis or when multidisciplinary treatment is planned.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
80%	18%	0%	2%	0%	100%	98%

Statement 8

Peritoneal washing with oncotic cytology should be performed in all cases during staging laparoscopy and/or surgery. It may be omitted if there is frank peritoneal carcinomatosis.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
72%	24%	4%	0%	0%	100%	96%

Statement 9

Analysis of serum tumor markers (CA19.9, CEA, CA 72.4) should be performed in all cases of gastric cancer.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
18%	38%	6%	26%	12%	100%	56%

Declaration 10

Currently, the staging that must be adopted is the UICC/ AJCC TNM 8th edition.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
96%	4%	0%	0%	0%	100%	100%

Treatment statements

Statement 11

Multidisciplinary therapeutic planning (surgeon, endoscopist, general clinician, oncologist, radiologist and pathologist) is recommended before starting any type of treatment.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
70%	20%	0%	10%	0%	100%	90%

Statement 12

Patients who had weight lost greater than 10% of their usual weight in the past six months should receive some form of nutritional therapy before starting any treatment.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
68%	32%	0%	0%	0%	100%	100%

Statement 13

Endoscopic resection is indicated in well-differentiated adenocarcinoma tumors, restricted to the mucosa (T1a), less than 2 cm in its longest axis and not ulcerated.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
94%	6%	0%	0%	0%	100%	100%

Statement 14

Early lesions with invasion of the submucosal layer, ulcerated, diffuse type and larger than 2 cm are exception criteria for endoscopic resection and should be adopted only in patients at high surgical risk.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
76%	16%	2%	6%	0%	100%	92%

Statement 15

Endoscopic submucosal dissection (ESD) is recommended as the treatment of choice for most superficial gastric tumors.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
42%	34%	8%	8%	8%	100%	76%

Statement 16

For tumors that do not meet endoscopic resection indication (T1b), surgery is indicated. In these cases, the recommended lymph node dissection is the removal of the perigastric lymph nodes (D1) in well-differentiated tumors smaller than 1.5 cm and associated with the removal of some lymph nodes in the N2 chain (D1 +) for undifferentiated tumors smaller than 1.5 cm.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
42%	34%	2%	18%	4%	100%	76%

Statement 17

In stage IB-III tumors (T2-4 any N), D2 lymph node dissection is indicated.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
90%	8%	2%	0%	0%	100%	98%

Statement 18

The UICC / AJCC recommends a minimum of 15 harvested lymph nodes to allow correct staging.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
78%	14%	0%	6%	2%	100%	92%

Statement 19

D2 lymphadenectomy recommends at least 25 harvested lymph nodes.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
54%	22%	4%	18%	2%	100%	76%

Statement 20

It is recommended at the end of each operation that a member of the surgical team send the surgical specimen for the pathological analysis with all the separate and identified lymph node chains.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
72%	18%	2%	8%	0%	100%	90%

Statement 21

Lymphadenectomies more extended than D2 (D2 + or D3) should be reserved only in selected cases.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
84%	8%	2%	6%	0%	100%	92%

Statement 22

Subtotal gastrectomy should be performed on distal tumors or in cases where the proximal margin is at least 5 cm between the tumor and the esophagogastric transition.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
70%	26%	2%	2%	0%	100%	96%

Statement 23

In diffuse tumors, a proximal margin of at least 8 cm is recommended.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
34%	38%	8%	16%	4%	100%	72%

Statement 24

In tumors invading the distal esophagus, the resection margin must be confirmed by frozen biopsy.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
72%	22%	2%	2%	2%	100%	94%

Statement 25

Total gastrectomy is recommended for proximal tumors and early multicentric tumors.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
74%	26%	0%	0%	0%	100%	100%

Statement 26

Splenectomy should be performed only in advanced tumors from the greater curvature of the proximal stomach, when there is invasion of the spleen or if there is evident lymph node involvement of the splenic hilum.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
76%	20%	4%	0%	0%	100%	96%

Statement 27

Patients with unresectable or marginally resectable lesions may be candidates for conversion therapy, which consists of chemotherapy followed by surgery to achieve R0 resection.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
78%	20%	0%	2%	0%	100%	98%

Statement 28

Duodenopancreatectomy can be indicated in cases of locally advanced gastric cancer, T4N0-2M0, young patients and with low surgical risk.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
58%	32%	4%	6%	0%	100%	90%

Statement 29

Hepatectomy is indicated in infiltrative liver tumors (T4b) without peritoneal carcinomatosis.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
68%	30%	0%	2%	0%	100%	98%

Statement 30

Patients with single liver metastasis may be eligible for surgery after a multidisciplinary evaluation.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
62%	24%	8%	6%	0%	100%	86%

Statement 31

The combined resection of adjacent or multivisceral organs can be performed, as long as the patient is in good clinical condition and, preferably, R0 resection is achieved.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
88%	8%	0%	4%	0%	100%	96%

Statement 32

In patients considered M1, palliative gastric resection may occasionally be performed in cases of obstruction, bleeding or perforation.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
90%	10%	0%	0%	0%	100%	100%

Statement 33

Palliative gastric resection in asymptomatic patients is not indicated as the first treatment approach.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
70%	16%	4%	10%	0%	100%	86%

Statement 34

Partial omentectomy (up to 3-5 cm from the gastroepiploic arcade) can be performed on T1/T2 tumors and total omentectomy must be performed on T3/T4 tumors.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
48%	30%	14%	6%	2%	100%	78%

Statement 35

Bursectomy should be performed only on T4 tumors arising from the posterior gastric wall.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
48%	32%	8%	12%	0%	100%	80%

Statement 36

Prophylactic total gastrectomy is indicated in confirmed familial hereditary gastric cancer with the CDh1 gene mutation.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
72%	28%	0%	0%	0%	100%	100%

Statement 37

Laparoscopic subtotal gastrectomy can be performed in distal third early GC.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
90%	8%	2%	0%	0%	100%	98%

Statement 38

Laparoscopic subtotal gastrectomy can be performed in distal third advanced gastric cancer.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
52%	40%	8%	0%	0%	100%	92%

Statement 39

Laparoscopic total gastrectomy can be performed in upper third early gastric cancer.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
62%	28%	8%	2%	0%	100%	90%

Statement 40

Laparoscopic total gastrectomy can be performed in upper third advanced GC.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
38%	38%	16%	8%	0%	100%	76%

Statement 41

The use of the robotic platform has the same indications and results as laparoscopy.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
64%	26%	8%	2%	0%	100%	90%

Statement 42

In Siewert type III adenocarcinomas, the standard surgery is total gastrectomy with distal esophagectomy.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
82%	14%	2%	2%	0%	100%	96%

Statement 43

In Siewert type II adenocarcinomas, the standard surgery is transthoracic esophagectomy (thoracoscopy) with proximal gastrectomy and gastric conduit.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
32%	32%	10%	22%	4%	100%	64%

Statement 44

In Siewert type I adenocarcinomas, the standard surgery is transthoracic esophagectomy (thoracoscopy) with proximal gastrectomy and gastric conduit.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
74%	18%	4%	4%	0%	100%	92%

Statement 45

Transmediastinal esophagectomy should be reserved for patients with poor or borderline clinical conditions and/or inability to access the thoracic cavity.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
36%	42%	6%	14%	2%	100%	78%

Statement 46

It is recommended that following an esophagectomy, the esophagogastronomy should be performed preferably in the cervical region.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
66%	24%	6%	2%	2%	100%	90%

Statement 47

Routine abdominal drain(s) are recommended for all gastric resections.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
36%	34%	6%	22%	2%	100%	70%

Statement 48

The duodenal stump should preferably be closed using mechanical suture.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
58%	26%	6%	8%	2%	100%	84%

Statement 49

There is no clear scientific evidence that reinforcement of the duodenal stump stapling line reduces the incidence of fistulas.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
60%	24%	12%	4%	0%	100%	84%

Statement 50

In subtotal and total gastrectomies, digestive transit should preferably be reconstructed by Roux-en-Y derivation.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
84%	12%	4%	0%	0%	100%	96%

Statement 51

Gastrojejunostomy and esophagojejunostomy should preferably be performed with mechanical suture.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
30%	40%	10%	16%	4%	100%	70%

Statement 52

After gastric resection, oral feeding should be started as soon as the patient has conditions and the intestinal transit is restored.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
48%	35%	2%	6%	9%	100%	83%

Chemoradiotherapy statements

Statement 53

Perioperative chemotherapy (before and after surgery) is indicated for stage \geq IB resectable tumors of the distal third.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
34%	34%	6%	20%	6%	100%	68%

Statement 54

Perioperative chemotherapy (before and after surgery) is indicated for stage \geq I resectable tumors of the middle and proximal third.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
38%	40%	4%	18%	0%	100%	78%

Statement 55

Stage \geq IB patients who underwent surgery without perioperative chemotherapy (up front surgery) have an indication for adjuvant chemotherapy.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
44%	36%	6%	10%	4%	100%	80%

Statement 56

Adjuvant radiotherapy is recommended in cases with an indication for adjuvant chemotherapy and who did not have an adequate lymph node dissection during surgery.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
38%	44%	8%	10%	0%	100%	82%

Statement 57

Patients with metastatic gastric cancer, in good clinical condition, have an indication for palliative chemotherapy.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
76%	18%	6%	0%	0%	100%	94%

Statement 58

Patients with metastatic gastric cancer who respond well to palliative chemotherapy and have little residual disease are candidates for conversion therapy with the aim of achieving an R0 resection.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
48%	36%	6%	8%	2%	100%	84%

Statement 59

Hyperthermic intraperitoneal chemotherapy (HIPEC) should be used only in research protocols, as there is still no consistent evidence of its real benefit.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
74%	12%	6%	6%	2%	100%	86%

Statement 60

Metastatic gastric cancer patients HER-2 positive are indicated for target therapy treatment (monoclonal antibody) associated with palliative chemotherapy.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
72%	20%	8%	0%	0%	100%	92%

Statement 61

Immunotherapy for patients with metastatic gastric cancer should be used only in research protocols, as there is still no consistent evidence of its real benefit.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
42%	28%	8%	16%	6%	100%	70%

Follow-up statements

Statement 62

Patients with metastatic gastric cancer who have not responded to palliative chemotherapy or in poor clinical conditions, should receive only palliative care with best support of care.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
84%	12%	2%	2%	0%	100%	96%

Statement 63

Patients undergoing radical surgery or after adjuvant therapy should not be followed due to the high cost and because there is no evidence that the follow-up improves survival.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
4%	14%	2%	36%	44%	100%	18%

Statement 64

Patients submitted to radical surgery can be followed through abdominal ultrasound, due to its accessibility and low cost.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
10%	28%	6%	42%	14%	100%	38%

Statement 65

In the postoperative period of patients submitted to radical surgery, the upper endoscopy is indicated when there is clinical suspicion of recurrence and digestive symptoms.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
48%	30%	0%	20%	2%	100%	78%

Statement 66

The long-term follow-up should be offered to patients undergoing radical surgery or after the end of adjuvant therapy for nutritional and psychological control and support, early detection of recurrence, treatment of complications and data collection.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
88%	12%	0%	0%	0%	100%	100%

Statement 67

The attempt of surgical resection in patients with single local recurrence and low surgical risk can be considered in selected cases.

Fully agree	Partially agree	Undecided	Disagree	Strongly disagree	Total	Consensus
78%	20%	0%	0%	2%	100%	98%

DISCUSSION

The word consensus originates from the Latin (consensus) and, by definition, means the agreement or uniformity of opinions, thoughts, feelings and beliefs of the majority or all of the members of a collective. Consensus are quite common in medicine. They are usually performed by experts in certain areas and consist of creating diagnostic and treatments guidelines for certain diseases⁷.

Several international societies have published their respective consensus and guidelines^{2,3,4,8,12,13,19,20,22}. In fact, it is paramount that each country has its own consensus. Although GC has similar characteristics between different races, there are peculiarities between different countries that must be addressed according to local conditions. These include the incidence of the disease, sanitary conditions, eating habits, cultural aspects, accessibility to diagnostic methods and treatment, among others. These differences can be seen in our country. Due to its enormous size, there is a huge difference between the aspects mentioned between the regions of Brazil. Therefore, it is essential that each location seeks to adapt the information contained in this consensus with its own reality, always seeking early diagnosis and the most effective treatment possible.

Unlike the I Consensus published in 2013²¹, in which the participants had the option to answer only yes or no to the questions, the authors of this consensus chose to provide more options for answers. This is because GC is a complex disease, with multiple factors that may influence its management. In short, often more than one path considered to be correct can be followed. In addition, this will allow, in future publications, each statement to be commented on based on evidence from the latest medical literature worldwide.

CONCLUSION

The treatment of gastric cancer has evolved considerably in recent years. This consensus gathers the answers of the questionnaire prepared by ABCG of several specialists in gastric cancer treatment in Brazil. This is the commitment of the Brazilian Gastric Cancer Association: to disseminate knowledge and allow professionals to achieve better outcomes in terms of patients' survival and quality of life.

ACKNOWLEDGMENT

The authors would like to thank all consensus member for scientific support and Cynthia Chiaradia for the data collection and statistical support.

Consensus Members (in alphabetical order)

Álvaro Antônio Bandeira Ferraz	Hospital das Clínicas, Universidade Federal de Pernambuco, Recife, PE, Brasil
Amir Zeide Charruf	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
André Brandalise	Hospital Centro Médico de Campinas, Campinas, SP, Brasil
André Maciel da Silva	Instituto Nacional do Câncer-INCA, Hospital Federal do Andaraí, Rio de Janeiro, RJ, Brasil
Barlon Alves	Hospital Regional de Ceilândia, Brasília, DF, Brasil
Carlos Augusto Martinez Marins	Hospital Federal dos Servidores do Estado/ RJ, Instituto Nacional do Câncer- INCA, Rio de Janeiro, RJ, Brasil
Celso Vieira Leite	Universidade Estadual de São Paulo, Botucatu, SP, Brasil
Claudio José Caldas Bresciani	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Daniel Szor	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Donato Roberto Mucerino	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Durval R. Wohnrath	Fundação Pio XII, Hospital de Câncer de Barretos, Barretos, SP, Brasil
Elias Jirjoss Ilias	Departamento de Cirurgia, Santa Casa de São Paulo, São Paulo, SP, Brasil
Euclides Dias Martins Filho	Universidade Federal de Pernambuco, Recife, PE, Brasil
Fabio Pinatel Lopasso	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Felipe José Fernandez Coimbra	AC Camargo Cancer Center, São Paulo, SP, Brasil
Fernando E. Cruz Felipe	Departamento de Cirurgia Oncológica Digestiva Alta do Hospital de Amor de Barretos, Barretos, SP, Brasil
Flávio Daniel Saavedra Tomasisch	Universidade Federal do Paraná, Serv. Oncologia Digestiva do Hospital Erasto Gaertner, Curitiba, R. Brasil
Flavio Roberto Takeda	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Geraldo Ishak	Universidade Federal do Pará, Belém, PA, Brasil
Gustavo Andreazza Laporte	Departamento de Cirurgia, Santa Casa de Porto Alegre, Porto Alegre, RS, Brasil
Herbeth José Toledo Silva	Universidade Estadual de Alagoas, Maceió, AL, Brasil
Ivan Ceconello	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Joaquim José Gama Rodrigues	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
José Carlos Del Grande	Universidade Federal de São Paulo, São Paulo, SP, Brasil
Leonardo Milhomem da Motta	Universidade Federal de Goiás, Goiânia, GO, Brasil
Leonardo Rocha Ferraz	Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil
Luis Fernando Moreira	Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, Brasil
Luis Roberto Lopes	Universidade Estadual de Campinas, Campinas, SP, Brasil
Marcelo Garcia Toneto	Hospital São Lucas da PUC-RS, Faculdade de Medicina da PUC-RS, Porto Alegre, RS, Brasil
Marcelo Mester	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Marco Antônio Gonçalves Rodrigues	Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil

Marineide Prudêncio de Carvalho	Departamento de Cirurgia, Santa Casa de São Paulo, São Paulo, SP, Brasil
Maurice Youssef Francis	Departamento de Cirurgia, Santa Casa de São Paulo, São Paulo, SP, Brasil
Nora Manoukian Forones	Universidade Federal de São Paulo, São Paulo, SP, Brasil
Oly Campos Corletta	Universidade Federal de Rio Grande do Sul, Porto Alegre, RS, Brasil
Osmar Kenji Yagi	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Osvaldo Antonio Prado Castro	Departamento de Cirurgia, Santa Casa de São Paulo, São Paulo, SP, Brasil
Osvaldo Malafaia	Faculdade Evangélica Mackenzie do Paraná, Curitiba, PR, Brasil
Paulo Pimentel Assumpção	Universidade Federal do Pará, Belém, PA, Brasil
Paulo Roberto Savassi-Rocha	Universidade Federal de Minas Gerais, Belo Horizonte, MG, Brasil
Ramiro Colleoni Neto	Universidade Federal de São Paulo, São Paulo, SP, Brasil
Rodrigo Jose de Oliveira	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Rubens Antonio Aissar Sallun	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Rui Weschenfelder	Hospital Moinhos de Vento, Porto Alegre, RS, Brasil
Saint Clair Vieira de Oliveira	Universidade Federal de Santa Catarina, Florianópolis, SC, Brasil
Thiago Boechat de Abreu	Hospital Federal de Bonsucesso, Rio de Janeiro, RJ, Brasil
Tiago Biachi de Castria	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Ulysses Ribeiro Junior	Hospital das Clínicas, Faculdade de Medicina, Universidade de São Paulo, São Paulo, SP, Brasil
Williams Barra	Universidade Federal do Pará, Belém, PA, Brasil
Wilson Luiz da Costa Júnior	Department of Medicine, Baylor College of Medicine, Houston, Texas, USA
Wilson Rodrigues de Freitas Júnior	Departamento de Cirurgia, Santa Casa de São Paulo, São Paulo, SP, Brasil

REFERENCES

- Amorim CA, Moreira JP, Rial L, et al. Ecological study of gastric cancer in Brazil: geographic and time trend analysis. *World J Gastroenterol.* 2014;20(17):5036-5044.
- Ajani JA, D'Amico TA, Almhanna K, Bentrem DJ, Chao J, Das P, et al. Gastric Cancer, Version 3.2016, NCCN Clinical Practice Guidelines in Oncology. *J Natl Compr Canc Netw.* 2016;14(10):1286-312.
- Association JGC. Japanese gastric cancer treatment guidelines 2018 (5th edition). *Gastric Cancer.* 2020.
- Baiocchi GL, D'Ugo D, Coit D, Hardwick R, Kassab P, Nashimoto A, et al. Follow-up after gastrectomy for cancer: the Charter Scaligero Consensus Conference. *Gastric Cancer.* 2016;19(1):15-20.
- Barchi LC, Gama-Rodrigues J, Carvalho FA, Barchi MC, Oliveira OC, Carneiro MF. Cystic gastric stromal tumor negative C-Kit. *Arq Bras Cir Dig.* 2012;25(4):300-302.
- Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. Global cancer statistics 2018: GLOBOCAN estimates of incidence and mortality worldwide for 36 cancers in 185 countries. *CA Cancer J Clin.* 2018;68(6):394-424.
- Council of Europe, Developing a methodology for drawing up guidelines on best medical practice (Recommendation Rec(2001)13 and explanatory memorandum), Strasbourg: Council of Europe Publishing, 2002.
- De Manzoni G, Marrelli D, Baiocchi GL, Morgagni P, Saragoni L, Degiuli M, et al. The Italian Research Group for Gastric Cancer (GIRCG) guidelines for gastric cancer staging and treatment: 2015. *Gastric Cancer.* 2017;20(1):20-30.
- Dias AR, Azevedo BC, Alban LBV, et al. Gastric neuroendocrine tumor: review and update. *Arq Bras Cir Dig.* 2017;30(2):150-154.
- FIGUEROA-GIRALT, Manuel et al. Introduction of the new lymphoparietal index for gastric cancer patients. *ABCD, arq. bras. cir. dig.,* 2019, vol.32, no.2. ISSN 0102-6720.
- Instituto Nacional de Câncer José Alencar Gomes da Silva (INCA). Estimativa 2018: incidência de câncer no Brasil. Rio de Janeiro (RJ), 2018.
- Kulig J, Wallner G, Drews M, Frączek M, Jeziorski A, Kielan W, et al. Polish Consensus on Treatment of Gastric Cancer; update 2017. *Pol Przegl Chir.* 2017;89(5):59-73.
- Lee JH, Kim JG, Jung HK, Kim JH, Jeong WK, Jeon TJ, et al. Clinical practice guidelines for gastric cancer in Korea: an evidence-based approach. *J Gastric Cancer.* 2014;14(2):87-104.
- Moore MA, Eser S, Iginov N, et al. Cancer epidemiology and control in North-Western and Central Asia - past, present and future. *Asian Pac J Cancer Prev.* 2010;11 Suppl 2:17-32.

15. Norero E, Quezada JL, Cerda J, et al. Risk factors for severe postoperative complications after gastrectomy for gastric and esophagogastric junction cancers. *Arq Bras Cir Dig.* 2019;32(4):e1473. Published 2019 Dec 20. doi:10.1590/0102-672020190001e1473.
16. Peduk S, Dincer M, Tatar C, et al. The role of serum CK-18, MMP-9 and TIMP-1 levels in predicting r0 resection in patients with gastric cancer. *Arq Bras Cir Dig.* 2018;31(4):e1401. Published 2018 Dec 6. doi:10.1590/0102-672020180001e1401.
17. Ramos M, Pereira MA, Charruf AZ, et al. Conversion therapy for gastric cancer: expanding the treatment possibilities. *ABCD.* 2019;32(2):e1435.
18. Sano T, Coit DG, Kim HH, et al. Proposal of a new stage grouping of gastric cancer for TNM classification: International Gastric Cancer Association staging project. *Gastric Cancer.* 2017;20(2):217-225.
19. Smyth EC, Verheij M, Allum W, Cunningham D, Cervantes A, Arnold D, et al. Gastric cancer: ESMO Clinical Practice Guidelines for diagnosis, treatment and follow-up. *Ann Oncol.* 2016;27(suppl 5):v38-v49.
20. Zaanan A, Bouché O, Benhaim L, Buecher B, Chapelle N, Dubreuil O, et al. Gastric cancer: French intergroup clinical practice guidelines for diagnosis, treatments and follow-up (SNFGE, FFCD, GERCOR, UNICANCER, SFCD, SFED, SFRO). *Dig Liver Dis.* 2018;50(8):768-79.
21. Zilberstein B, Malheiros C, Lourenço LG, et al. Brazilian consensus in gastric cancer: guidelines for gastric cancer in Brasil. *Arq Bras Cir Dig.* 2013;26(1):2-6.
22. Wang FH, Shen L, Li J, Zhou ZW, Liang H, Zhang XT, et al. The Chinese Society of Clinical Oncology (CSCO): clinical guidelines for the diagnosis and treatment of gastric cancer. *Cancer Commun (Lond).* 2019;39(1):10.