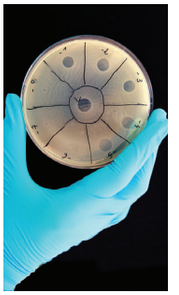

Annex **6B**

Recommendations for Colorectal Cancer Treatment in Four Levels of Facility Resources

Table 6B.1 Treatment Resource Allocation: Stages I and II Colon Cancer

Level of resources	Local-regional treatment		Systemic treatment	
	Surgery	Radiation	Chemotherapy	Biological
Basic	Hemicolectomy and regional lymph node dissection	—	—	—
Limited	Hemicolectomy and regional lymph node dissection	—	—	—
Enhanced	Hemicolectomy with en bloc removal of at least 12 regional lymph nodes	—	—	—
Maximal	Polypectomy for selected stage I cancers with good prognostic features[a] Hemicolectomy with en bloc removal of at least 12 regional lymph nodes May be laparoscopically-assisted	—	Consider adjuvant 5-fluorouracil or capecitabine in high-risk stage II[b]	—

Note: Since no international consensus-setting exercise has occurred, this categorization represents a basis for further discussion and work, and not a definitive analysis. Basic resource level is assumed to correspond to low-income countries (limited or no access to radiation, and likely insufficient support for blood chemistry to undertake chemotherapy). Limited resource level corresponds to rural areas of middle-income countries, where distances to radiation and chemotherapy resources make use in treatment difficult. In urban areas of middle-income countries (enhanced level), radiation therapy is available, as are many chemotherapy drugs no longer under patent. The maximal level corresponds to resource availability in high-income countries. See chapter 16 for more detailed discussion of resource levels. The recommendations are cumulative: any intervention that is feasible at a lower resource level is also an option at higher resource levels. Blank cells indicate that no additional options of a particular type of treatment are available at the particular resource level considered.

a. A polyp that is completely removed with clear margins, where the cancer is not high grade, not invading the stalk, and with no lymphovascular or perineural invasion.

b. Obstruction, perforation, T4, lymphovascular or perineural invasion, less than 12 lymph nodes removed.

— = not applicable.

Table 6B.2 Treatment Resource Allocation: Stage I Rectal Cancer

	Local-regional treatment		Systemic treatment	
Level of resources	**Surgery**	**Radiation**	**Chemotherapy**	**Biological**
Basic	Low anterior resection or abdominal-perineal resection where necessary for distal tumors, with lymph node dissection	—	—	—
Limited	Low anterior resection, or abdominal-perineal resection where necessary for distal tumors, with lymph node dissection	—	—	—
Enhanced	Total mesorectal excision Trans-anal excision possible in some low-lying T1N0 tumors with good prognostic features[a]	—	—	—
Maximal	Total mesorectal excision Trans-anal excision possible in some low-lying T1N0 tumors with good prognostic features[a]	—	—	—

Note: Since no international consensus-setting exercise has occurred, this categorization represents a basis for further discussion and work, and not a definitive analysis. Basic resource level is assumed to correspond to low-income countries (limited or no access to radiation, and likely insufficient support for blood chemistry to undertake chemotherapy). Limited resource level corresponds to rural areas of middle-income countries, where distances to radiation and chemotherapy resources make their use in treatment difficult. In urban areas of middle-income countries (enhanced level), radiation therapy is available, as are many chemotherapy drugs no longer under patent. The maximal level corresponds to resource availability in high-income countries. See chapter 16 for more detailed discussion of resource levels. The recommendations are cumulative: any intervention that is feasible at a lower resource level is also an option at higher resource levels. Blank cells indicate that no additional options of a particular type of treatment are available at the particular resource level considered.

a. T1N0, < 3 cm, < 30 percent circumference, not poorly differentiated, no lymphovascular or perivascular invasion.

— = not applicable.

Table 6B.3 Treatment Resource Allocation: Stage III Colon Cancer

	Local-regional treatment		Systemic treatment	
Level of resources	**Surgery**	**Radiation**	**Chemotherapy**	**Biological**
Basic	Hemicolectomy and regional lymph node dissection	—	—	—
Limited	Hemicolectomy and regional lymph node dissection	—	Adjuvant 5-fluorouracil	—
Enhanced	Hemicolectomy with en bloc removal of at least 12 regional lymph nodes	—	Adjuvant FOLFOX[a]	—
Maximal	Hemicolectomy with en bloc removal of at least 12 regional lymph nodes; may be laparoscopically-assisted	—	Adjuvant FOLFOX[a]	—

Note: Since no international consensus-setting exercise has occurred, this categorization represents a basis for further discussion and work, and not a definitive analysis. Basic resource level is assumed to correspond to low-income countries (limited or no access to radiation, and likely insufficient support for blood chemistry to undertake chemotherapy). Limited resource level corresponds to rural areas of middle-income countries, where distances to radiation and chemotherapy resources make use in treatment difficult. In urban areas of middle-income countries (enhanced level), radiation therapy is available, as are many chemotherapy drugs no longer under patent. The maximal level corresponds to resource availability in high-income countries. See chapter 16 for more detailed discussion of resource levels. The recommendations are cumulative: any intervention that is feasible at a lower resource level is also an option at higher resource levels. Blank cells indicate that no additional options of a particular type of treatment are available at the particular resource level considered.

a. FOLinic acid (leucovorin), Fluorouracil, OXaliplatin.

— = not applicable.

Table 6B.4 Treatment Resource Allocation: Stages II and III Rectal Cancer

Level of resources	Local-regional treatment		Systemic treatment	
	Surgery	Radiation	Chemotherapy	Biological
Basic	Low anterior resection, or abdominal-perineal resection where necessary for distal tumors, with lymph node dissection	—	—	—
Limited	Low anterior resection, or abdominal-perineal resection where necessary for distal tumors, with lymph node dissection	Preoperative short-course radiotherapy alone	Adjuvant 5-fluorouracil	—
Enhanced	Total mesorectal excision	Preoperative chemo-radiotherapy	Capecitabine or infusional 5-fluorouracil with radiation Adjuvant FOLFOX[a]	—
Maximal	Total mesorectal excision	Preoperative chemo-radiotherapy	Capecitabine or infusional 5-fluorouracil with radiation Adjuvant FOLFOX[a]	—

Note: Since no international consensus-setting exercise has occurred, this categorization represents a basis for further discussion and work, and not a definitive analysis. Basic resource level is assumed to correspond to low-income countries (limited or no access to radiation, and likely insufficient support for blood chemistry to undertake chemotherapy). Limited resource level corresponds to rural areas of middle-income countries, where distances to radiation and chemotherapy resources make use in treatment difficult. In urban areas of middle-income countries (enhanced level), radiation therapy is available, as are many chemotherapy drugs no longer under patent. The maximal level corresponds to resource availability in high-income countries. See chapter 16 for more detailed discussion of resource levels. The recommendations are cumulative: any intervention that is feasible at a lower resource level is also an option in facilities with higher resource levels. Blank cells indicate that no additional options of a particular type of treatment are available at the particular resource level considered.

a. FOLinic acid (leucovorin), Fluorouracil, OXaliplatin.

— = not applicable.

Table 6B.5 Treatment Resource Allocation: Stage IV Colorectal Cancer

Level of resources	Local-regional treatment		Systemic treatment	
	Surgery	Radiation	Chemotherapy	Biological
Basic	If symptomatic, palliative resection of the primary	—	—	—
Limited	If symptomatic, palliative resection of the primary	—	Palliative 5-fluorouracil	—
Enhanced	If symptomatic, palliative resection of the primary Consider aggressive resection of liver and lung metastases for cure	For palliation if necessary	FOLFOX[a] FOLFIRI[b]	—
Maximal	If symptomatic, palliative resection of the primary Consider aggressive resection of liver and lung metastases for cure	For palliation if necessary Consider pseudoadjuvant radiation to the pelvis if resecting rectal cancer metastases for cure	FOLFOX[a] FOLFIRI[b]	Bevucizumab, Aflibercept If K-RAS wild-type: Cetuximab, panitumumab Regorafenib

Note: Since no international consensus-setting exercise has occurred, this categorization represents a basis for further discussion and work, and not a definitive analysis. Basic resource level is assumed to correspond to low-income countries (limited or no access to radiation, and likely insufficient support for blood chemistry to undertake chemotherapy). Limited resource level corresponds to rural areas of middle-income countries, where distances to radiation and chemotherapy resources make use in treatment difficult. In urban areas of middle-income countries (enhanced level), radiation therapy is available, as are many chemotherapy drugs no longer under patent. The maximal level corresponds to resource availability in high-income countries. See chapter 16 for more detailed discussion of resource levels. The recommendations are cumulative: any intervention which is feasible at a lower resource level is also an option at higher resource levels. Blank cells indicate that no additional options of a particular type of treatment are available at the particular resource level considered.

a. FOLinic acid (leucovorin), Fluorouracil, OXaliplatin.

b. FOLinic acid (leucovorin), Fluorouracil, IRInotecan.

— = not applicable.