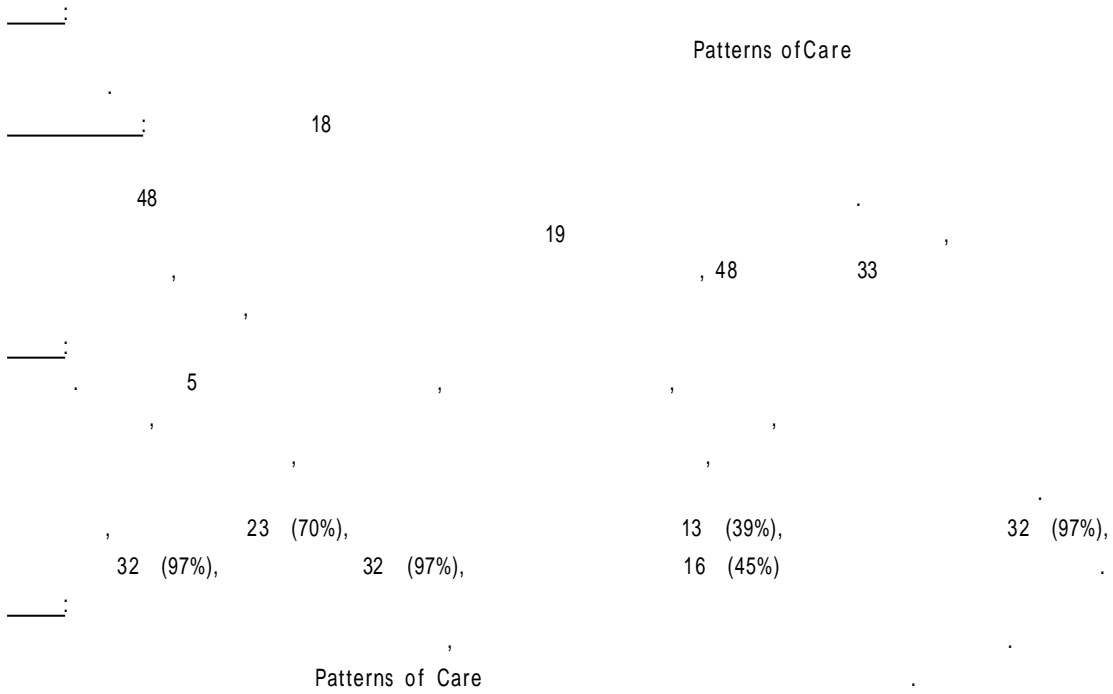


# Patterns of Care

\*, †, ‡, §  
 †, 가  
 ††, ‡‡, §§  
 \*, \*, †, ‡, §, ¶  
 \*\*, ††, ‡‡, §§



가 가 가  
 가 가  
 2003 5 28 2003 7 28 가 1~4)  
 Tel: 02)3010-4434, Fax: 02)486-7258 가 가  
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6 L4-L5 L5-S1 가  
 , 4  
 , 1  
 가 L4-L5 , 1  
 T4 2 ~  
 5 cm  
 L5-S1 L5  
 23 (70%)  
 2.  
 (Abdominoperineal resection; APR)  
 1  
 1 cm 가 10  
 (30.3%), 1.5 ~ 3 cm 가 22  
 (66.7%) (Low anterior  
 resection; LAR) (obturator foramen)  
 가 13 (39.4%), 가  
 가 13 (39.4%), 가  
 (15.2%), 가 5  
 가 1 (3.0%),  
 가 1 (3.0%)  
 (2 ~ 3 cm)  
 13 가  
 가  
 가  
 N-  
 가 14 (42.4%), N-  
 가  
 10 (30.3%), N-  
 가  
 9 (27.3%) 가

Table 2. Considering Factors for Determining Anterior Margin of Radiation Fields

Factors for anterior margin	Number	(%)
Bony landmarks		
Symphysis pubis posterior tip	15	(45)
Symphysis pubis mid	2	(6)
Symphysis pubis anterior tip	-	-
L-spine anterior surface+margin	2	(6)
Tumor extent		
Tumor anterior extent+margin	13	(39)
No reply	1	(3)
Total	33	(100)

3. ( 1)  
 10  
 (30%), 22 (67%)  
 CT- (sacral canal)  
 4. ( 1)(Table 2)  
 (symphysis pubis) 15 (45%) 가  
 , 13 1/2  
 50%가  
 5. (external iliac node)  
 가 32 (97%)  
 (hypogastric node)  
 가 27 (82%) , 6  
 가 18%

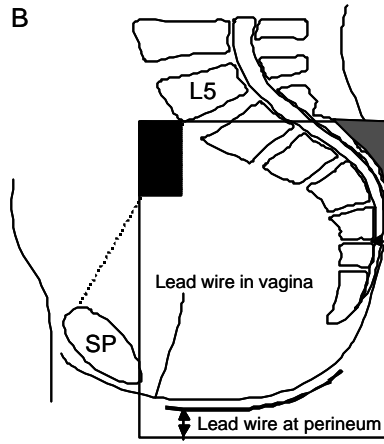
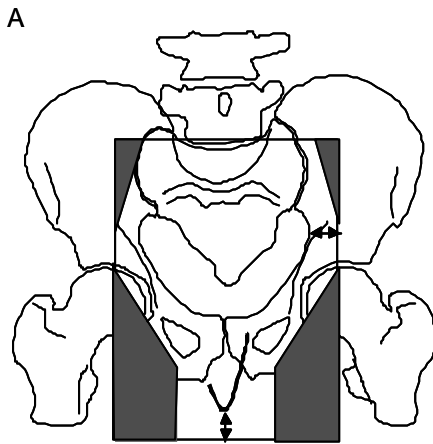


Fig. 1. Radiation fields after an abdominopelvic resection (APR). Superior margin, L5 low, mid, or upper SI joint: Inferior margin, about 2~3cm below perineal scar: Anterior margin, posterior tip of symphysis pubis: Posterior margin, some distance from Ant/Post surface of sacrum: Lateral margin, 1.5~2cm lateral to pelvic brim.

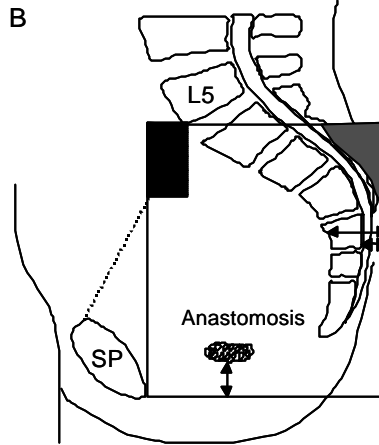
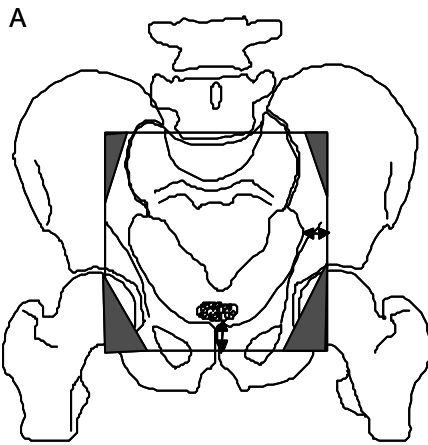


Fig. 2. Radiation fields after a low anterior resection (LAR). Superior margin, L5 low, mid, or upper SI joint: Inferior margin, about 2~3 cm below anastomosis: Anterior margin, posterior tip of symphysis pubis: Posterior margin, some distance from Ant/Post surface of sacrum: Lateral margin, 1.5~2 cm lateral to pelvic brim.

가

1.

6~8)

L5-S1

가

가 가

가

(Fig. 1B, 2B).

가

(pelvic inlet line)

가 가

(serosa)

가

가

가

가

가

가

9)

L5-S1



5

3.

가

가

가

1.5 cm

<sup>3)</sup>

4,10)

가

2.

1)

가

2 cm  
<sup>2)</sup> 2 cm  
2 cm

가  
(Fig. 1B, 2B).

가

4.

(Fig. 2).<sup>11-18)</sup> <sup>20)</sup>

72

2 cm 3 cm

가

2)

(anal canal)

가

가 가

가

가

(Fig.

1).

가 가

10 :

<sup>3)</sup> 가

가

가

(Fig. 1B,

가

2B).

가 , , , ,

. Sanfilippo

T4 가 45

<sup>19)</sup>

<sup>21)</sup>

307

6

6.

T4

(Fig. 1B, 2B).

(29 , 97%)

(anal canal)

가

(hypogastric node)

가

<sup>3,10)</sup>

가

1 ~

2 cm 가

(Tepper, personal communication)(Fig. 1, 2).

2 ~ 3 cm,

가

5. (antero-superior/  
inferior block)

(antero-superior/  
inferior block)

가

1.5 cm,

1.5 cm

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 Abstract
 

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## Suggestion of Optimal Radiation Fields in Rectal Cancer Patients after Surgical Resection for the Development of the Patterns of Care Study

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**Purpose:** To suggest the optimal radiation fields after a surgical resection based on a nationwide survey on the principles of radiotherapy for rectal cancer in the Korean Patterns of Care Study.

**Materials and methods:** A consensus committee, composed of radiation oncologists from 18 hospitals in Seoul Metropolitan area, developed a survey format to analyze radiation oncologist's treatment principles for rectal cancer after a surgical resection. The survey format included 19 questions on the principles of defining field margins, and was sent to the radiation oncologists in charge of gastrointestinal malignancies in all Korean hospitals (48 hospitals). Thirty three (69%) oncologists replied. On the basis of the replies and literature review, the committee developed guidelines for the optimal radiation fields for rectal cancer.

**Results:** The following guidelines were developed: superior border between the lower tip of the L5 vertebral body and upper sacroiliac joint; inferior border 2 ~3 cm distal to the anastomosis in patient whose sphincter was saved, and 2 ~3 cm distal to the perineal scar in patients whose anal sphincter was sacrificed; anterior margin at the posterior tip of the symphysis pubis or 2 ~3 cm anterior to the vertebral body, to include the internal iliac lymph node and posterior margin 1.5 ~2 cm posterior to the anterior surface of the sacrum, to include the presacral space with enough margin. Comparison with the guidelines, the replies on the superior margin coincided in 23 cases (70%), the inferior margin after sphincter saving surgery in 13 (39%), the inferior margin after abdominoperineal resection in 32 (97%), the lateral margin in 32 (97%), the posterior margins in 32 (97%) and the anterior margin in 16 (45%).

**Conclusion:** These recommendations should be tailored to each patient according to the clinical characteristics such as tumor location, pathological and operative findings, for the optimal treatment. The adequacy of these guidelines should be proved by following the Korean Patterns of Care Study.

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**Key Words:** Rectal cancer, Radiotherapy, Radiation field