the average LNR distributions: low LNR⩽0.25, intermediate LNR more than 0.25 up to 0.75, and high LNR > 0.75. Survival analyses used the Kaplan-Meier method. End-point was death from any cause. Significance testing used the logrank. Chi-square values are reported for stomach and colorectal to allow comparison with the relevant TNM subdivisions.
Results: Median follow-up was 91 months. Five-year survival rates by site and by LNR were respectively:

Site	Nb. patients	Low-LNR	Mid-LNR	High-LNR	Logrank P
Esophagus	576	16%	5%	4%	<0.0001
Stomach	3381	31%	16%	7%	<0.0001
Small intestine	508	66%	52%	51%	0.035
Colorectal	26181	49%	30%	15%	<0.0001
Anal canal	102	39%	25%	22%	0.187
Hepatobiliary	346	21%	19%	7%	<0.0001
Pancreas	660	11%	9%	8%	0.029

Chi^2 based on relevant TNM subdivisions was 192.3 for stomach, and 1488.7 for colorectal. Respective Chi^2 based on LNR were 438.4 and 2723.0, indicating better prognostic separation with the LNR. As in Figure 1, other sites also showed better separation with LNR.
Conclusions: The lymph node ratio performed consistently in all digestive sites. Further investigations on its role for staging are warranted.

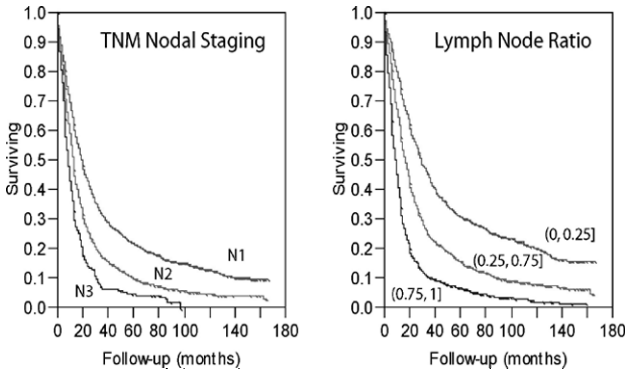

Figure 1. Survival in stomach carcinoma, as classified by the pN nodal staging (left), or by the Lymph node ratio (right). The separation between is notably better with the Lymph node ratio.

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Postoperative adjuvant chemotherapy in Japanese gastric cancer patients using Doxifluridine, an intermediate metabolite of Capecitabine, and 5-Fluorouracil – randomized controlled trial

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Objective: To investigate the usefulness of doxifluridine (5'-DFUR) in comparison with 5-Fluorouracil (5-FU) in postoperative adjuvant chemotherapy for gastric cancer including the association with levels of thymidine phosphorylase (TP) and dihydropyrimidine dehydrogenase (DPD).
Materials and methods: Patients with disease stage II, III-a, or III-b and curability of A or B gastric cancer were eligible for the study, and were randomized using minimization method (stratification factors: disease stage, curability, TP level, and gender), patients were allocated either to 5'-DFUR (400 mg/m^2) or to 5-FU (100 mg/m^2) group. After surgery, patients in each group were administered per orally doxifluridine or 5-fluorouracil daily for 2 years, and they were followed up post-operatively for 5 years. Based on the Kaplan-Meier method, a treatment-specific disease-free survival curves (DFS) and survival curves were estimated for comparison. As the secondary study, levels of DPD were also measured to compare doxifluridine and 5-fluorouracil by the TP/DPD ratio.
Result: During the period from September 1995 to August 1998, 212 patients were enrolled at a total of 48 medical institutions. There was no major bias between the two groups in demographic factors. In terms of a DFS curve and a survival curve in all patients at the post-operative 5-year time point, there was no statistical difference between the two groups. In a stratified log-rank test and a TP/DPD ratio-specific investigation as well, similar results to the above were obtained. DFS curves in patients with measurable DPD levels in the high- and low-TP/DPD-ratio groups were estimated. As a result, DFS curves in patients in the high-TP/DPD-ratio group were found to be significantly better (P = 0.043: log-rank test). This tendency was found to be more relevant in patients in the 5'-DFUR group.
Conclusion: In comparison of 5'-DFUR and 5-FU treatment in postoperative adjuvant chemotherapy for gastric cancer, no statistical difference was observed in either the DFS curve or survival curve. In the TP/DPD ratio-specific investigation conducted as the secondary study, patients with the high-TP/DPD-ratio group had significantly better DFS and survival curves, regardless of the treatment. Thus, the TP/DPD ratio was considered to be useful in predicting responses in the treatment using fluorinated pyrimidines, especially with 5'-DFUR.

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Fluorouracil, leucovorin and oxaliplatin (FLO) versus fluorouracil, leucovorin and cisplatin (FLP) as a first line therapy in patients with advanced gastric cancer –interim analysis of a multicenter, randomized phase II trial

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Background: Cisplatinum-based chemotherapy is widely used as first-line treatment for advanced gastric cancer which is, however, associated with limited efficacy and significant toxicities. The purpose of our study was to evaluate tolerability and efficacy of oxaliplatin combination chemotherapy in patients (pts) with advanced gastric cancer.
Methods: Patients were required to demonstrate adequate liver, renal, and haematological function and ECOG performance status 0–2 to participate. Participants were randomised to receive FLO: Fluorouracil (F) 2600 mg/m^2 24 h infusion, leucovorin (L) 200 mg/m^2, and oxaliplatin 85 mg/m^2 every two weeks or FLP: F 2000 mg/m^2 24 h infusion, L 200 mg/m^2, weekly, and cisplatin 50 mg/m^2 every two weeks. Primary end point was progression free survival. To evaluate safety and response a planned interim analysis was performed after 80 patients had been randomized and completed at least one treatment cycle.

	FLO n = 44		FLP n = 36	
Safety (NCI)	All grades	Grades 3/4	All grades	Grades 3/4
Vomiting (%)	29.5	4.5	44.4	2.8
Diarrhea (%)	25	0	22.2	2.8
Stomatitis (%)	13.6	0	11.1	2.8
Infection (%)	4.5	0	8.3	2.8
Neurosensory (%)	54.5	9.1	19.4	0
Anemia (%)	45.5	0	55.6	2.8
Leucopenia	31.8	0	33.3	11.1
Thrombopenia	31.8	9.1	19.4	0
Response (WHO)*	**n/41**	**%**	**n/33**	**%**
CR	2	4.9	0	–
PR	14	34.1	8	24.2
SD	19	46.3	15	45.5
PD	6	14.6	10	30.3

*p = 0.072

Results: 140 pts have been randomized so far. Results for toxicity and response on the first 80 pts are shown in the table. Progression free survival was 5.6 months (FLO) vs. 3.6 months (FLP) (p = 0.90).