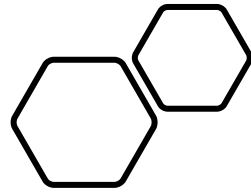


総合診療医学領域の研究

by JUGLER

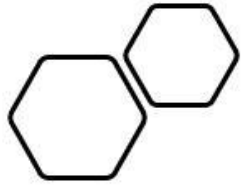
-研究テーマの分類と体系化-

多胡 雅毅	(佐賀大学)
志水 太郎	(獨協医科大学)
佐々木 陽典	(東邦大学)
鋪野 紀好	(千葉大学)
和足 孝之	(島根大学)
高橋 宏瑞	(順天堂大学)



本日の内容

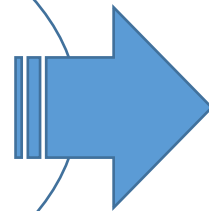
- **本企画の目的**
- 先行研究の紹介
- JSHGM会員向け調査結果
- テーマ別ディスカッション
- 質疑応答
- まとめ



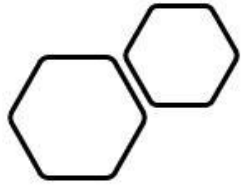
目的

- 本邦での総合診療医の学術活動は不十分
- 米国のホスピタリストが地位を確立するために重要な要素
→ 研究生産性 + 学術分野としての発展

総合診療専門医
新家庭医療専門医
病院総合診療専門医



医師像と役割を明確にするために
さらなる学術活動の発展が必要



目的

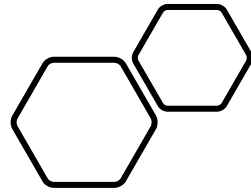


総合診療領域の研究テーマには教育や疫学などが含まれ、多岐に渡る



研究領域における我が国の総合診療医の役割は明確にされていない

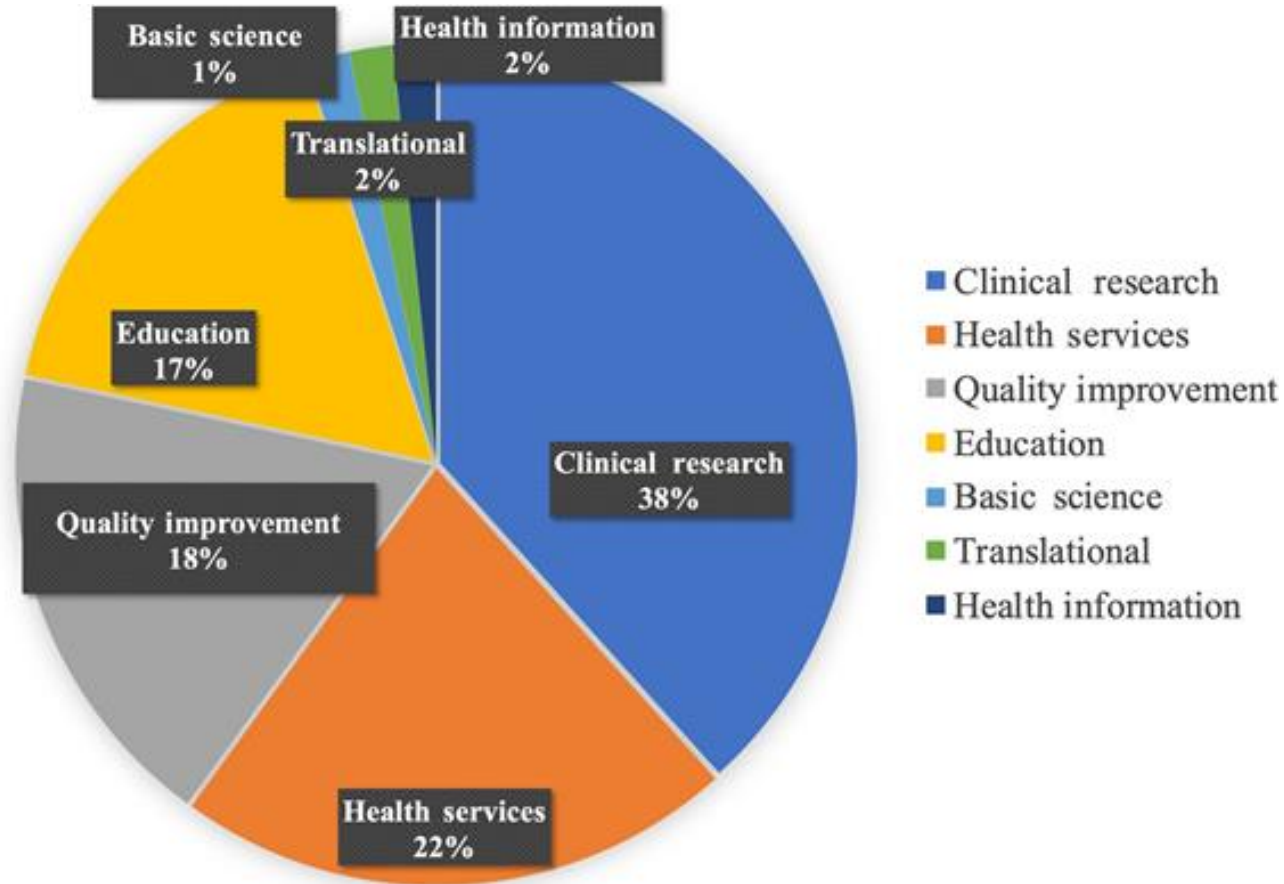
本セッションでは**総合診療医の研究テーマを明確にし、分類及び体系化**することを目的とする。



本日の内容

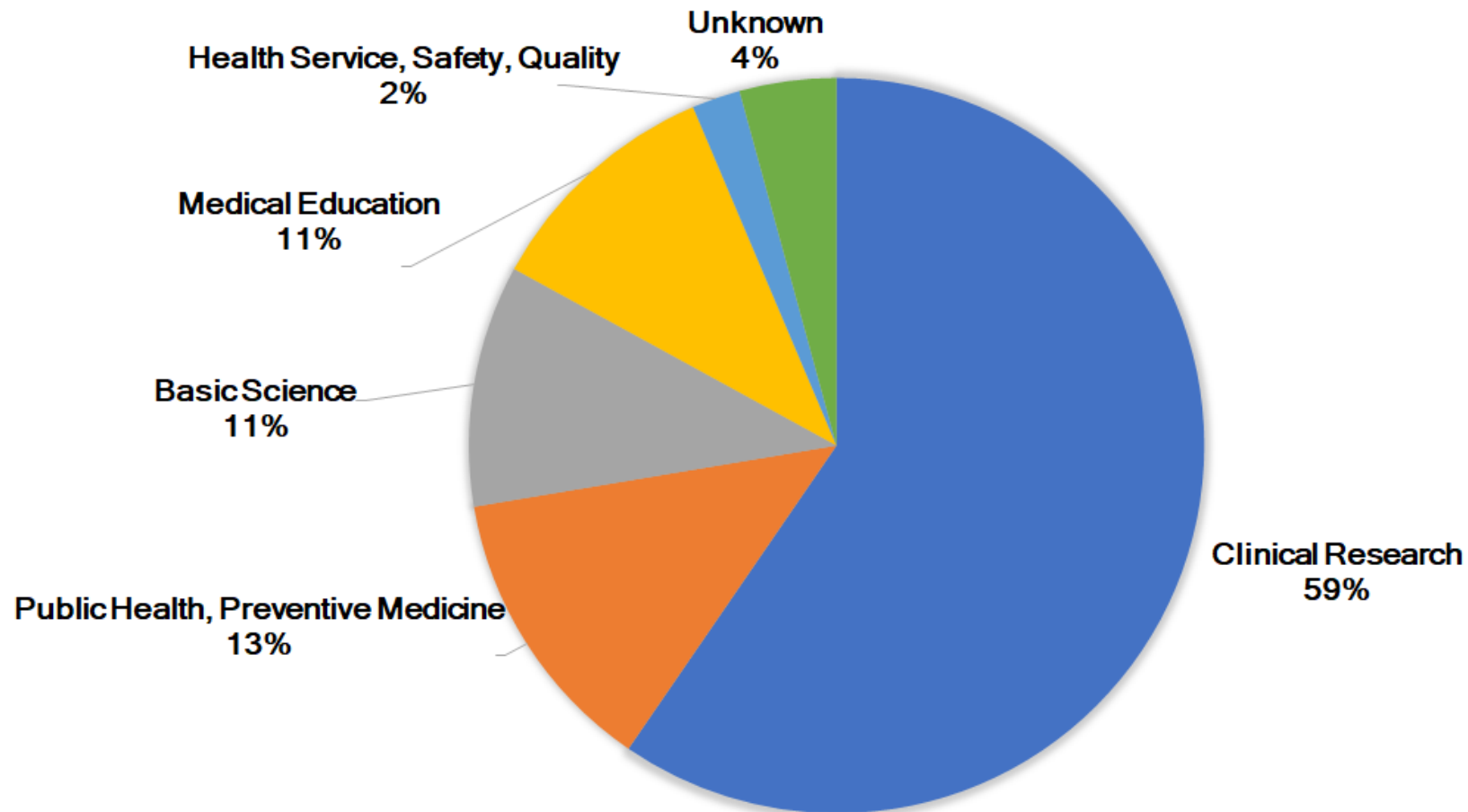
- 本企画の目的
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- テーマ別ディスカッション
- 質疑応答
- まとめ

The new era of academic hospitalist in Japan



Research Trends in General Medicine Departments of University Hospitals in Japan

Int J Gen Med, 2021. In Press

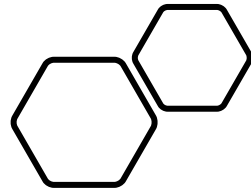


Research Trends in General Medicine Departments of University Hospitals in Japan. Int J Gen Med, 2021. In Press

Section number*	Basic Section	n
52010	General internal medicine	20
58010	Medical management and medical sociology	11
54030	Infectious disease medicine	5
53010	Gastroenterology	4
58030	Hygiene and public health-related: excluding laboratory approach	4
53020	Cardiology	3
54040	Metabolism and endocrinology	3
49070	Immunology	2
55060	Emergency medicine	2
58020	Hygiene and public health-related: including laboratory approach	2
58080	Gerontological nursing and community health nursing	2
10020	Educational psychology	1

Section number*	Basic Section	n
50020	Tumor diagnostics and therapeutics	1
52020	Neurology	1
53030	Respiratory medicine	1
54010	Hematology and medical oncology	1
59010	Rehabilitation science	1
59040	Nutrition science and health science	1
90130	Medical systems	1
90140	Medical technology assessment	1
08020	Social welfare	1
09050	Tertiary education	1

Table 1: Research themes of General Medicine departments of university hospitals classified using the Review Section of the Japanese KAKENHI classification



本日の内容

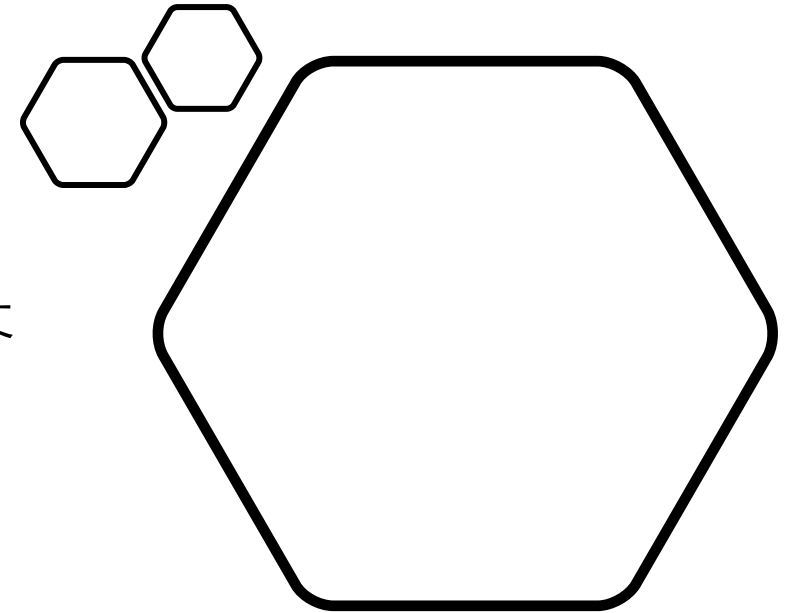
- 本企画の目的
- 先行研究の紹介
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JSHGM会員向け調査結果

全学会員1886名中、274名（14.5%）が回答
Googleフォームを用いたアンケート調査

先行研究（Watari T, et al. Int Gen Med, 2021）と
同じ分類から択一

総合診療ならではの研究テーマから選択（複数選択可）



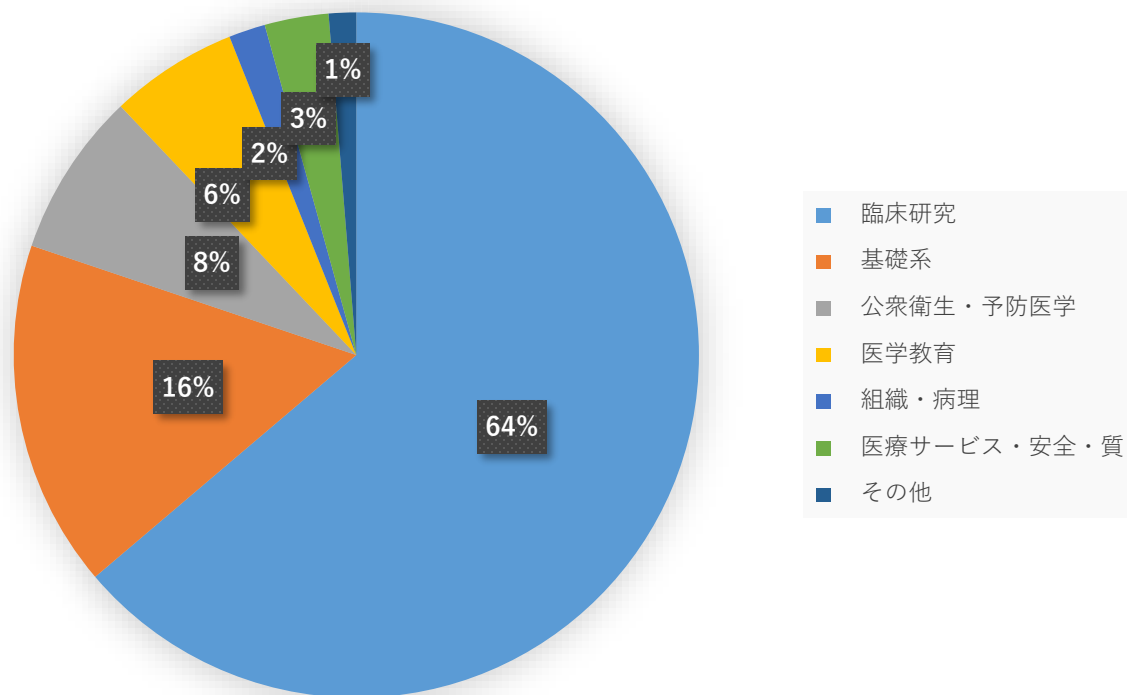
結果



臨床研究	148
基礎系	38
公衆衛生・予防医学	18
医学教育	14
組織・病理	4
医療サービス・安全・質	7
その他	3

その他内訳	
医療倫理	1
TR	1
医療機器開発、テクノロジーの社会実装	1

メイン研究

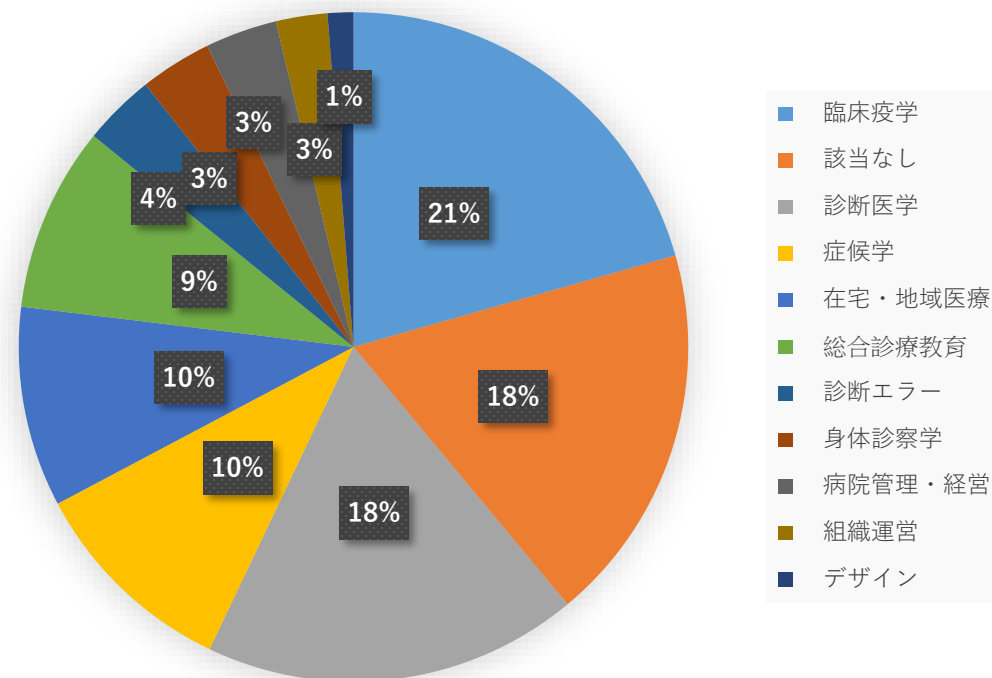


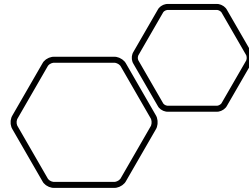
結果

臨床疫学	83
該当なし	74
診断医学	73
症候学	41
在宅・地域医療	39
総合診療教育	36
診断エラー	14
身体診察学	14
病院管理・経営	14
組織運営	10
デザイン	5

該当なし内訳	
医療ICT	1
産業医学	1
スポーツ医学	1
通常の臨床医学の研究	1
長寿因子について	1
東洋医学	1
癌治療	1
臨床介入研究	1
臨床観察研究	1
ACP	1
代替医療	1
リハビリと栄養等	1
感染症	1
HIV/AIDS診療	1
マーケティング	1
肝炎ウイルス	1
生体ガス	1
行動変容	1
消化器疾患の診断と治療など臨床研究	1
臨床病態解析	1
非侵襲的検査	1
病態学	1
該当するものはない	56
分類がわかりません	1

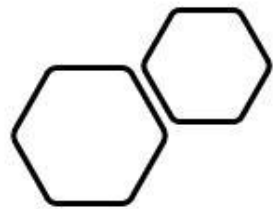
研究テーマ





本日の内容

- 本企画の目的
- 先行研究の紹介
- JSHGM会員向け調査結果
- **テーマ別ディスカッション**
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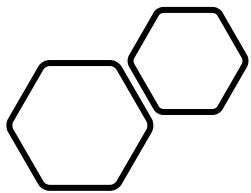


ディスカッション

総合診療ならではのテーマ

- 臨床疫学
- 診断医学
- 症候学
- 在宅・地域医療
- 総合診療教育
- 身体診察
- 診断エラー
- 病院管理・経営
- 組織運営
- デザイン

に関する研究について、実例を紹介しながら議論する



臨床疫学



Medicine (Baltimore) (1.552) Taro Shimizu, MD, PhD, MPH, MBA

Observational Study

Medicine®

OPEN

Safety and efficacy of outpatient follow-up for referred patients with undiagnosed fever

A retrospective cohort study

Yukinori Harada, MD, Mikako Masuda, MD, Takanobu Hirosawa, MD, Hiroshi Takase, MD, Kohei Morinaga, MD, Michihiro Nin, MD, Taro Shimizu, MD, MPH, MBA, PhD*



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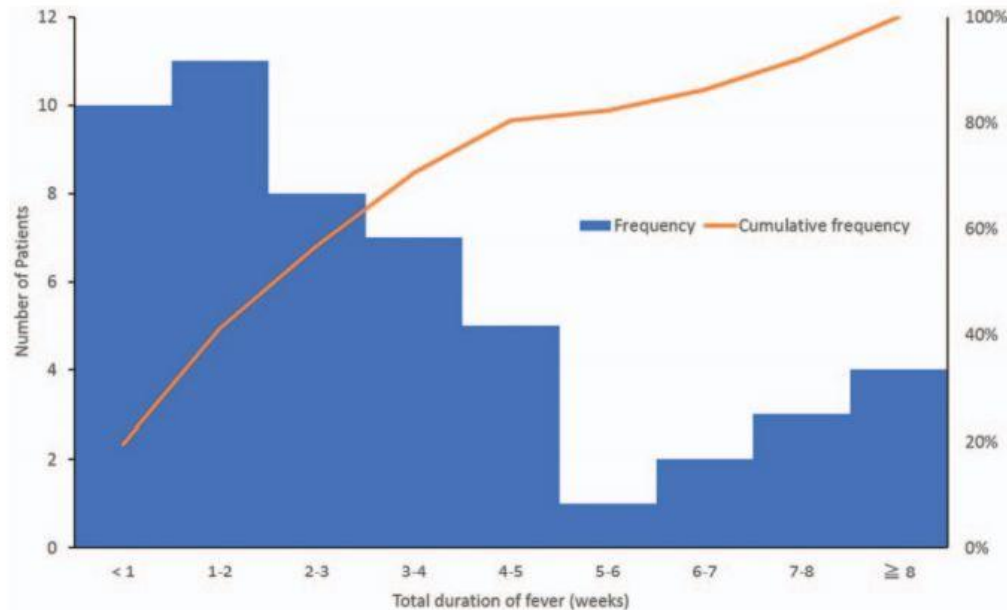


Figure 2. Total duration of fever in patients whose fever resolved during outpatient follow-up without diagnosis. Blue columns indicate a histogram of the total duration of fever, and height represents the number of patients. The orange line represents the cumulative percentage of patients.

原因不明の発熱を有する紹介患者に対する外来フォローアップの安全性を検証した後方視的研究

[ORIGINAL ARTICLE]

Clinical Status Quo of Infective Endocarditis in a University Hospital in Japan: A Single-hospital-based Retrospective Cohort Study

Shun Yamashita, Midori Tokushima, Tomotaro Nakashima, Naoko E Katsuki,
Masaki Tago and Shu-ichi Yamashita



<https://bit.ly/3eD3kic>

10年分の大学病院のIE
症例の関する記述研究。
2000年に国内で実施さ
れた研究結果との比較。

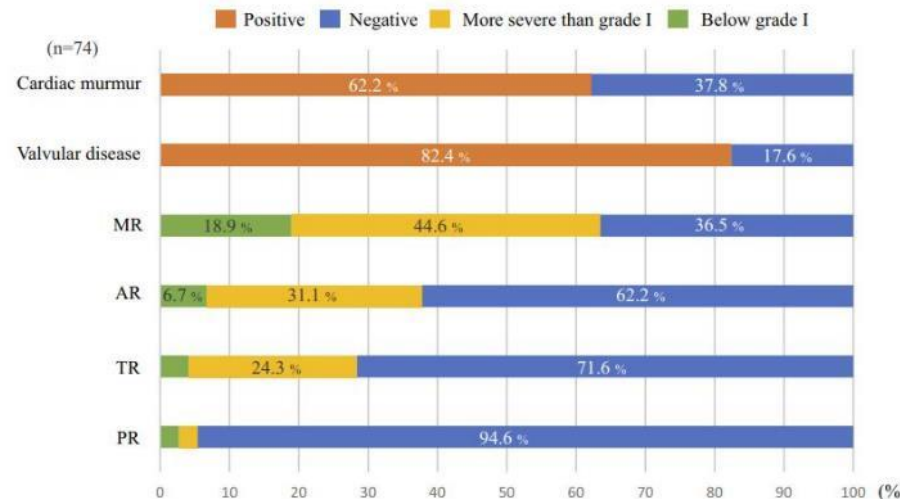


Figure 2. Cardiac murmurs and valvular disease. Findings of cardiac auscultation were recorded in the medical charts of 73/74 patients, and findings of echocardiography were recorded for all study patients. No cardiac murmurs were detected in 28 patients (37.8%), and no valvular disease was detected in 13 (17.6%) by either TTE or TEE, resulting in 24 patients (32.4%) being classified as having no or only grade I valvular disease. Detected valvular diseases consisted of mitral regurgitation (47, 63.5%), aortic regurgitation (28, 37.8%), tricuspid regurgitation (21, 28.4%), and pulmonary regurgitation (4, 5.4%), and valvular diseases more severe than grade I were found in 33 (44.6%), 23 (31.1%), 18 (24.3%), and 2 (2.7%) of these patients, respectively.

Table 6. Complications.

Complications	n=74
Central nerve system disorder	45 (60.8%)
Embolic stroke	39 (52.7%)
Cerebral hemorrhage	17 (23.0%)
Cerebral hemorrhage including microhemorrhage [†]	23 (31.1%)
Glomerulonephritis	34 (45.9%)
Hematuria	43 (58.1%)
Proteinuria	35 (47.3%)
Extracranial embolism	27 (36.5%)
Spleen	17 (23.0%)
Kidney	9 (12.2%)
Pulmonary	8 (10.8%)
Liver	2 (2.7%)
Superior mesenteric artery	1 (1.4%)
Disseminated intravascular coagulation	24 (32.4%)
Disseminated infection	14 (18.9%)
Pyogenic spondylitis	7 (9.5%)
Deep-seated abscess	7 (9.5%)
Mycotic aneurysm	4 (5.4%)
Pyogenic arthritis	3 (4.1%)
Spinal epidural abscess	1 (1.4%)
Acute heart failure	11 (14.9%)
Total complications per patient	
None	5 (6.8%)
One	20 (27.0%)
Two	20 (27.0%)
Three	19 (25.7%)
Four	10 (13.5%)
Over five	N/A

[†]: microhemorrhage: an asymptomatic cerebral hemorrhage that can be diagnosed only by cranial MRI.

Open access

Original research

BMJ Open Relationships between sites of abdominal pain and the organs involved: a prospective observational study

Shun Yamashita , Masaki Tago, Naoko E Katsuki, Tomoyo M Nishi, Shu-ichi Yamashita

大学総合外来の腹痛患者の部位と原因臓器の研究。1997年に当院で実施された研究結果との比較。

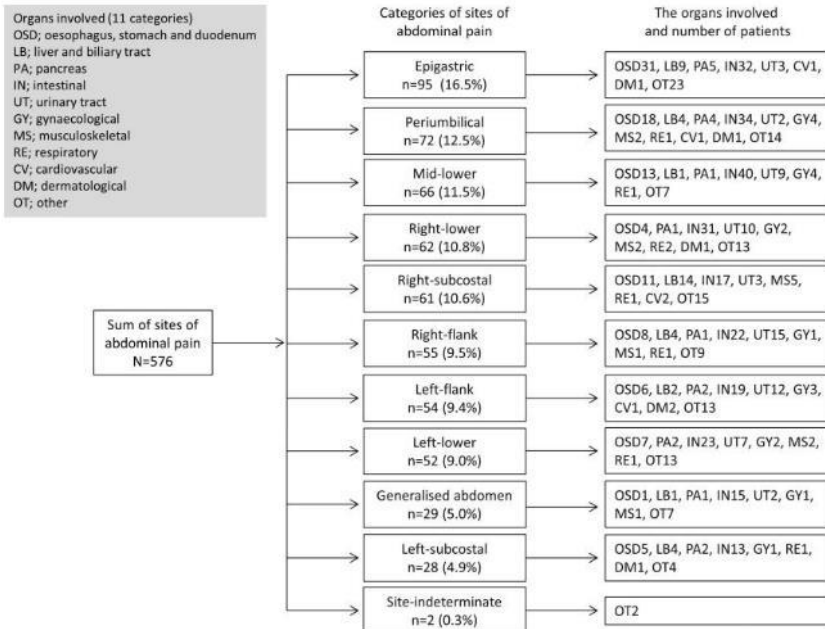


Table 3 Relationships between sites of abdominal pain and diagnoses of patients in the present study

Sites of pain	Organs involved	Sensitivity %	Specificity %	Lr+ (95% CI)	Lr- (95% CI)
Left flank	Dermatological	66.7	83.9	4.14 (1.27 to 5.92)	0.40 (0.07 to 0.95)
Right subcostal	Liver and biliary tract	56.0	84.4	3.59 (2.23 to 5.08)	0.52 (0.32 to 0.76)
Right flank	Urinary tract	39.5	86.1	2.84 (1.71 to 4.42)	0.70 (0.53 to 0.87)
Mid-lower	Intestinal	32.0	87.1	2.47 (1.60 to 3.83)	0.78 (0.70 to 0.88)
Right subcostal	Musculoskeletal	41.7	82.2	2.34 (1.05 to 4.0)	0.71 (0.39 to 0.99)
Epigastric	Oesophagus, stomach and duodenum	53.4	76.1	2.24 (1.60 to 2.99)	0.61 (0.46 to 0.79)
Left flank	Urinary tract	31.6	85.4	2.16 (1.23 to 3.57)	0.80 (0.63 to 0.96)
Epigastric	Urinary tract	7.9	68.1	0.25 (0.08 to 0.66)	1.35 (1.15 to 1.44)
Periumbilical	Urinary tract	5.3	75.7	0.22 (0.06 to 0.72)	1.25 (1.08 to 1.31)
Mid-lower	Liver and biliary tract	4.0	78.4	0.19 (0.33 to 0.92)	1.22 (1.02 to 1.27)
Generalised	Oesophagus, stomach and duodenum	1.7	89.5	0.17 (0.03 to 0.90)	1.10 (1.01 to 1.12)

LR, likelihood ratio.



<https://bit.ly/3hkBr0c>

Figure 2 Classification of sites of abdominal pain. Sites of abdominal pain were classified into 11 categories, including nine different abdominal sections (right or left subcostal, right or left flank, right or left lower, epigastric, periumbilical and mid-lower), generalised abdomen and site-indeterminate. When patients had multiple sites of pain or multiple organs involved, classification and analysis of all sites and organs were performed. A total of 576 sites of abdominal pain were identified in the 326 subjects in the study. The most frequent complaint was epigastric pain (95/576; 16.5%), followed by periumbilical pain (72; 12.5%), mid-lower pain (66; 11.5%) and right lower pain (62; 10.8%).

DOI: 10.1111/ggi.14027

ORIGINAL ARTICLE

EPIDEMIOLOGY, CLINICAL PRACTICE AND HEALTH

Reactive leukocytosis in older patients with acute colonic diverticulitis: A retrospective study utilizing logistic regression analysis

Yosuke Sasaki,  Fumiya Komatsu, Naoyasu Kashima, Tadashi Maeda and Yoshihisa Urita

高齢者では急性感染症で白血球増多が乏しいという経験則を実証するために憩室炎を高齢者と非高齢者で診療所見を比較



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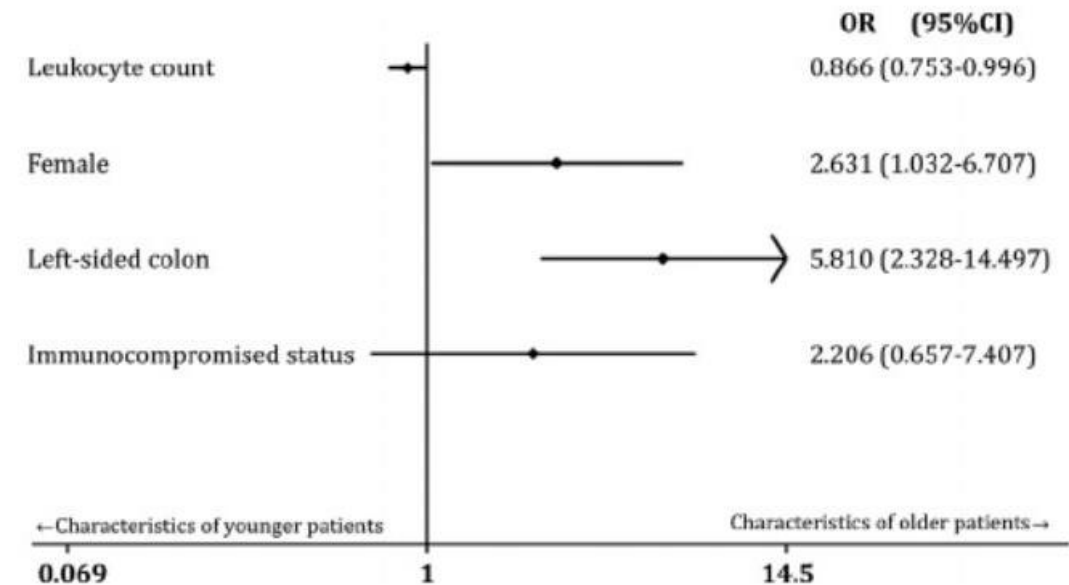
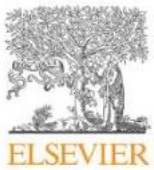


Figure 1 Characteristics of older patients (Forest plot). Leukocyte count has a significantly lower OR. Female and left-sided colon have significantly higher ORs. Immunocompromised status does not have a significantly high OR. 95% CI, 95% confidence interval; OR, odds ratio.



Contents lists available at ScienceDirect

Journal of Infection and Chemotherapy

journal homepage: <http://www.elsevier.com/locate/jic>



Original Article

Effect of antibiotics for infectious diarrhea on the duration of hospitalization: A retrospective cohort study at a single center in Japan from 2012 to 2015

Yosuke Sasaki ^{a,*}, Yoshitaka Murakami ^b, Hiroaki Zai ^a, Hitoshi Nakajima ^a, Yoshihisa Urita ^a



感染性腸炎入院例への経験的抗菌薬投与が入院期間を短縮するか比較した後方視的研究

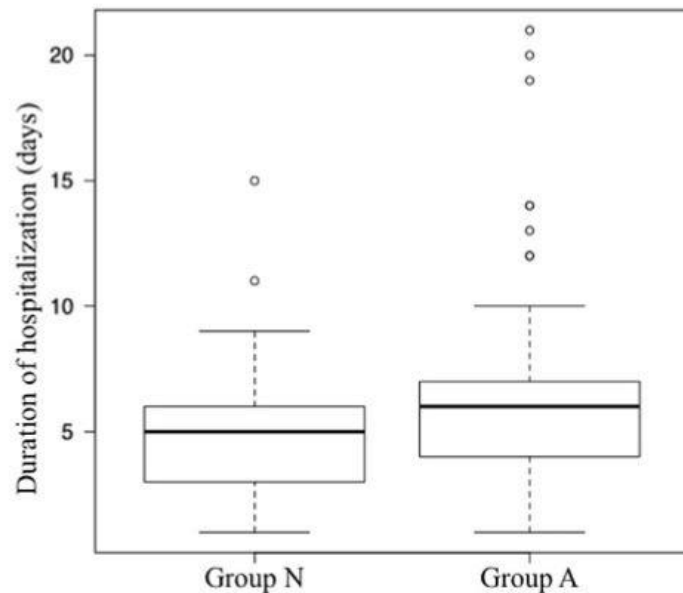


Fig. 2. Distribution of hospitalization duration among the groups. Group A: patients managed with antibiotics during hospitalization. Group N: patients managed without antibiotics.

Table 4

Prognostic factors for the duration of hospitalization for infectious diarrhea.

Variable	Regression coefficient	p value
Empiric antimicrobial therapy	1.173	0.017
Use of probiotics	0.465	0.246
Age (years)	0.031	0.003
Underlying disease	-0.129	0.813
Hematochezia	1.435	0.008
Leukocyte count (/mm ³)	-0.080	0.088
Serum creatinine (mg/dL)	0.638	<0.001
Serum CRP (mg/dL)	0.112	0.002

The above variables were included in the multiple regression analysis, for which the outcome was the duration of hospitalization. CRP, C-reactive protein.

Table 5

Significant factors that motivate clinicians to use antibiotics.

Variable	Odds ratio (95% confidence interval)	p value
Age (years)	0.98 (0.97–1.01)	0.051
Underlying disease	1.03 (0.313–3.39)	0.857
Hematochezia	1.97 (0.64–6.03)	0.148
Leukocyte count (/mm ³)	1.21 (1.07–1.37)	<0.001
Serum creatinine (mg/dL)	1.72 (0.59–4.97)	0.176
Serum CRP (mg/dL)	1.06 (0.96–1.17)	0.059

The above variables were included in the logistic regression analysis, for which the outcome was use of antibiotics. CRP, C-reactive protein.



<https://bit.ly/3y7pKQ8>



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Journal of Infection and Chemotherapy

journal homepage: <http://www.elsevier.com/locate/jic>



<https://bit.ly/3bkR1Vy>

Original Article

Sex difference in clinical presentation of patients with infectious mononucleosis caused by Epstein-Barr virus

Yosuke Sasaki ^{a,*}, Takamasa Ishii ^{a,b}, Tadashi Maeda ^a, Takeo Mori ^a, Tomoyuki Shigeta ^a, Katsuhito Kashiwagi ^a, Fumiya Komatsu ^a, Atsushi Yamada ^a, Sho Kijima ^a, Ikutaka Takemoto ^a, Taito Miyazaki ^a, Yoshihisa Urita ^a



伝染性単核球症の臨床症状の男女差を調べた疫学的研究

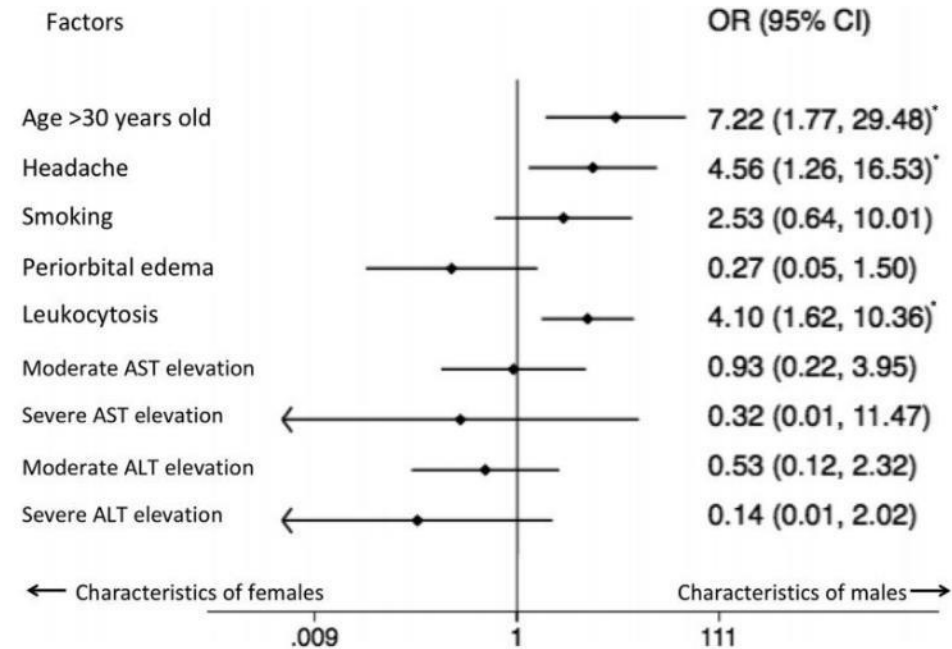


Fig. 1. Logistic regression for evaluation of characteristics of male patients. *The forest plot shows that age >30 years old, headache, and leukocytosis (defined as leukocyte count >11,000/mm³) are independent characteristics of male patients. Abbreviations: ALT, aminotransferase; AST, aspartate aminotransferase; OR, odds ratio, 95%CI, 95% confidence interval.

Infection (2013) 41:1189–1193
DOI 10.1007/s15010-013-0483-2

CASE REPORT

Meningitis associated with strongyloidiasis in an area endemic for strongyloidiasis and human T-lymphotropic virus-1: a single-center experience in Japan between 1990 and 2010

Y. Sasaki · T. Taniguchi · M. Kinjo ·
R. L. McGill · A. T. McGill · S. Tsuha ·
S. Shiiki

糞線虫関連髄膜炎に関する疫学的研究



<https://bit.ly/3tLU7IQ>

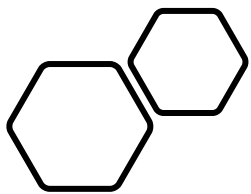
Table 1 Clinical features of all episodes

Patient	Sex	Age (year)	CSF culture	Blood culture	CSF Gram staining	HTLV-1	Specimens from which <i>S. stercoralis</i> was detected	Past history	Antibiotics	Anthelmintics	Outcome
1	Female	75 (1990)	(-)	(-)	PMN	(+)	Stool, sputum	Smoldering ATLL	ABPC, CTX	Thiabendazole	Recovery
2	Male	66 (1990)	(-)	<i>S. bovis</i>	GPC	(+)	Stool	None	ABPC, CTX	Thiabendazole	Recovery
3	Female	61 (1990)	<i>Enterococcus</i> sp	(-)	PMN	(-)	Stool, gastric juice	Neurosurgery	CTX	Thiabendazole	Recovery
4	Female	69 (1991)	(-)	(-)	PMN	(-)	Stool	Neurosurgery	None	Thiabendazole	Recovery
5	Female	31 (1991)	<i>E. coli</i>	(-)	PMN	(+)	Stool, gastric juice	Meningitis Strongyloidiasis	ABPC, CTX	Thiabendazole	Recovery
		38 (1998)	<i>L. lactis</i>	<i>L. lactis</i>	GNR		Stool		ABPC, CTX	Thiabendazole	Recovery
		40 (2000)	<i>S. bovis</i>	<i>S. bovis</i>	GPC		Stool		ABPC, CTX, VCM	Thiabendazole	Recovery
6	Female	29 (1992)	<i>K. pneumoniae</i>	<i>K. pneumoniae</i>	PMN	(+)	Stool, gastric juice	None	CTX	Thiabendazole	Recovery
7	Male	38 (1992)	<i>S. sanguinis</i>	(-)	PMN	(+)	Stool	Strongyloidiasis Chronic hepatitis B	ABPC, CTX	Thiabendazole	Recovery
		43 (1997)	(-)	(-)	GPC		Stool		CTX, VCM	Thiabendazole	Recovery
		45 (1999)	(-)	(-)	PMN		Stool		CTX	Thiabendazole	Recovery
		45 (1999)	(-)	(-)	PMN		None		CTX	Thiabendazole	Recovery
		46 (2000)	(-)	(-)	PMN		Stool		CTX	Thiabendazole	Recovery
		49 (2003)	(-)	(-)	PMN		Stool, sputum		CTX	Ivermectin	Recovery
8	Female	62 (1993)	(-)	<i>E. coli</i>	PMN	(+)	Stool	Meningitis Strongyloidiasis	CTX	Thiabendazole	Recovery
		63 (1993)	<i>E. coli</i>	<i>E. coli</i>	PMN	(+)	None		CTX	Thiabendazole	Recovery
		64 (1995)	(-)	(-)	PMN	(+)	None		ABPC, CTX	Thiabendazole	Recovery
		65 (1995)	(-)	<i>E. coli</i>	PMN	(+)	None		CTX	Thiabendazole	Recovery
		76 (1996)	(-)	<i>K. pneumoniae</i>	PMN	(+)	Stool, gastric juice	Smoldering ATLL	ABPC, CTX	Thiabendazole	Recovery
9	Male	76 (1996)	<i>K. pneumoniae</i>	<i>K. pneumoniae</i>	GNR	(+)	None		CTX	Thiabendazole	Death
		68 (1997)	(-)	(-)	PMN	(+)	Stool, gastric juice	Acute ATLL	ABPC, CTX	Thiabendazole	Death
11	Male	60 (1997)	(-)	(-)	PMN	(+)	Stool	Smoldering ATLL	ABPC, CTX	Thiabendazole	Recovery
12	Male	44 (1999)	<i>S. bovis</i>	<i>S. bovis</i>	PMN	(+)	Stool	Smoldering ATLL Resected rectal CA	ABPC, CTX	Thiabendazole	Recovery
13	Male	66 (2002)	<i>S. bovis</i>	<i>S. bovis</i>	GPC	(+)	Stool	None	ABPC, CTX	Thiabendazole	Recovery
14	Female	66 (2003)	(-)	(-)	PMN	(+)	Stool	RA, DM	CTX, VCM	Thiabendazole	Recovery
15	Female	52 (2004)	<i>K. pneumoniae</i>	<i>K. pneumoniae</i>	GNR	(-)	Stool, gastric juice, sputum	Uveitis ^a , DM	CTX	Ivermectin	Death
16	Female	81 (2004)	(-)	(-)	PMN	(-)	Stool, gastric juice, sputum, ascites	Malnutrition	CTX	Ivermectin	Death
17	Male	64 (2005)	<i>K. pneumoniae</i>	<i>K. pneumoniae</i>	GNR	(+)	Gastric juice, sputum	Malnutrition	ABPC, CTX	Ivermectin	Recovery
18	Male	58 (2005)	<i>K. pneumoniae</i>	<i>K. pneumoniae</i>	GNR	(-)	Gastric juice	Malnutrition	ABPC, CTX	Ivermectin	Death
19	Female	54 (2006)	(-)	(-)	GNR	(+)	Stool	Malnutrition	CTX	Ivermectin	Recovery
20	Male	46 (2006)	<i>S. bovis</i>	<i>S. bovis</i>	GPC	(+)	Stool, gastric juice	Acute ATLL	CTX, VCM	Ivermectin	Death
		49 (2009)	(-)	(-)	PMN	(+)	Not performed	None	ABPC, CTX	None	Recovery
21	Male	49 (2009)	<i>S. bovis</i>	(-)	GPC	(+)	Stool		ABPC, CTRX, VCM	Ivermectin	Recovery

ABPC ampicillin, ATLL adult T cell leukemia/lymphoma, CA carcinoma, CTRX ceftriaxone, CTX cefotaxime, DM diabetes mellitus, *E. coli* *Escherichia coli*, GNR Gram-negative rods, GPC Gram-positive cocci, *K. pneumoniae* *Klebsiella pneumoniae*, *L. lactis* *Lactococcus lactis*, PMN polymorphonuclear neutrophils, RA rheumatoid arthritis, *S. bovis* *Streptococcus bovis*, *S. sanguinis* *Streptococcus sanguinis*, VCM vancomycin

^a Indicates the year when diagnosis was made

^b Oral glucocorticoid was prescribed



診断医学



Article

Efficacy of Artificial-Intelligence-Driven Differential-Diagnosis List on the Diagnostic Accuracy of Physicians: An Open-Label Randomized Controlled Study

Yukinori Harada ^{1,2} , Shinichi Katsukura ², Ren Kawamura ² and Taro Shimizu ^{2,*}



AIを活用した鑑別診断リストが、
医師の診断精度に与える効果を
検証したRCT

<https://bit.ly/3y2qBBL>

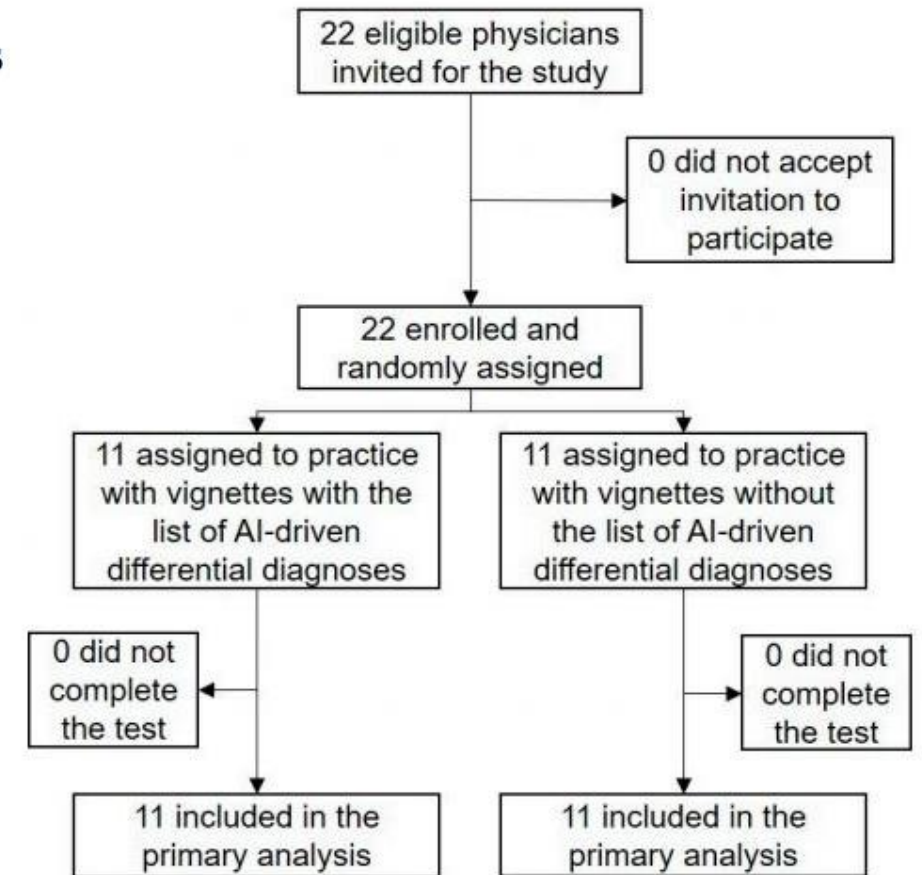


Figure 1. Study flowchart.

Hirosawa et al. *BMC Infectious Diseases* (2020) 20:85
<https://doi.org/10.1186/s12879-020-4814-5>

BMC Infectious Diseases

RESEARCH ARTICLE

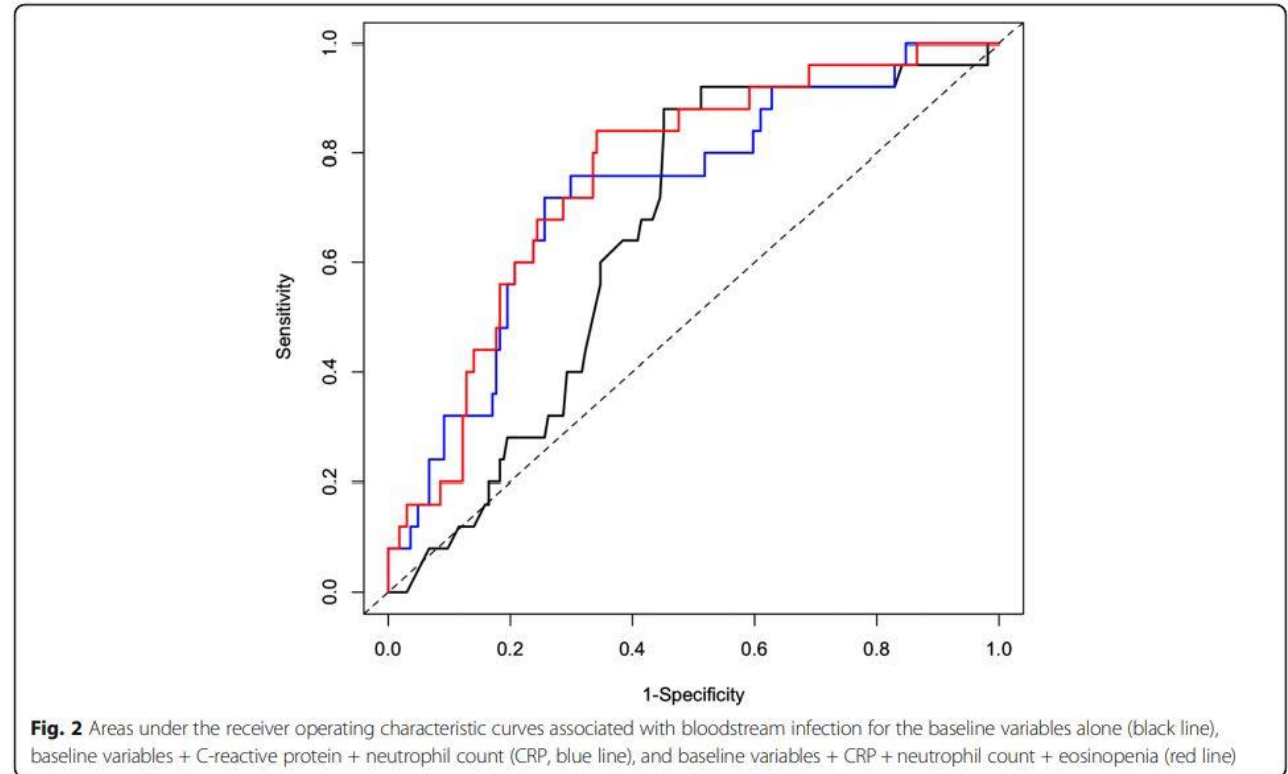
Open Access

Eosinopenia as a diagnostic marker of bloodstream infection in a general internal medicine setting: a cohort study

Takanobu Hirosawa, Yukinori Harada, Kohei Morinaga, Hiroshi Takase, Michihiro Nin and Taro Shimizu*



<https://bit.ly/2Rcua7R>



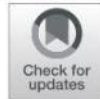
Hirosawa et al. *BMC Infectious Diseases* (2020) 20:85
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BMC Infectious Diseases

RESEARCH ARTICLE

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Eosinopenia as a diagnostic marker of bloodstream infection in a general internal medicine setting: a cohort study



Takanobu Hirosawa, Yukinori Harada, Kohei Morinaga, Hiroshi Takase, Michihiro Nin and Taro Shimizu*



<https://bit.ly/2Rcua7R>

Table 2 Areas under the receiver operating characteristic curves of eosinophil, total white cell, neutrophil count, CRP, and qSOFA as potential markers of bloodstream infection identified through univariate analysis

Variable	Cut-off value	AUROC (95% CI)	P value*
Eosinophil count	< 24.4 cells/mm ³	0.648 (0.547–0.748)	0.007
White cell count	> 10,950 cells/mm ³	0.597 (0.472–0.723)	0.185
Neutrophil count	> 9033 cells/mm ³	0.638 (0.519–0.758)	0.040
CRP, mg/l	> 4.89 mg/dl	0.699 (0.597–0.802)	0.001
qSOFA		0.502 (0.433–0.572)	0.952
Chills		0.556 (0.458–0.655)	0.211

AUROC Area under the receiver operating characteristic curve

CI confidence interval, CRP C-reactive protein

qSOFA Quick Sequential (Sepsis-Related) Organ Failure Assessment

*P values by chi-squared, Mann-Whitney U test, or Fisher's exact test

**Bootstrapping method (1000 bootstrap replicates)

Table 3 Areas under the receiver operating characteristic curves of the predictive models for bloodstream infection

Model	AUROC (95% CI)	P value	IDI	P value	NRI	P value
Baseline variables*	0.650 (0.551–0.749)					
Baseline variables + CRP + neutrophil count	0.729 (0.622–0.835)	0.002**	0.069**	0.023**	0.583**	0.005**
Baseline variables + CRP + neutrophil count + eosinopenia	0.758 (0.664–0.853)	0.048***	0.016***	0.284***	0.592***	0.003***

AUROC Area under the receiver operating characteristic curves

CI confidence interval, CRP C-reactive protein

IDI integrated discrimination index

NRI net reclassification improvement

* Including age, sex

** Compared with the model with baseline variables

***Compared with the model with baseline variables + CRP + neutrophil count

****Bootstrapping method (1000 bootstrap replicates)

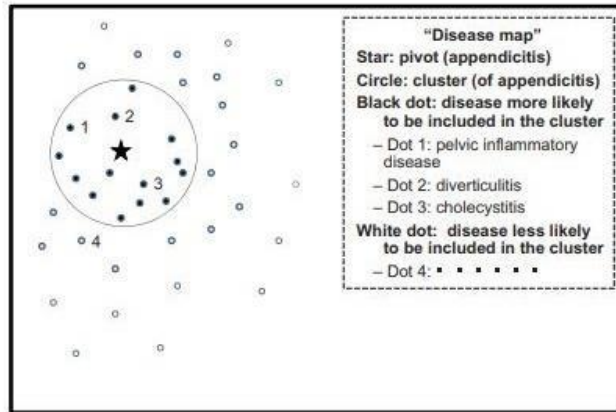
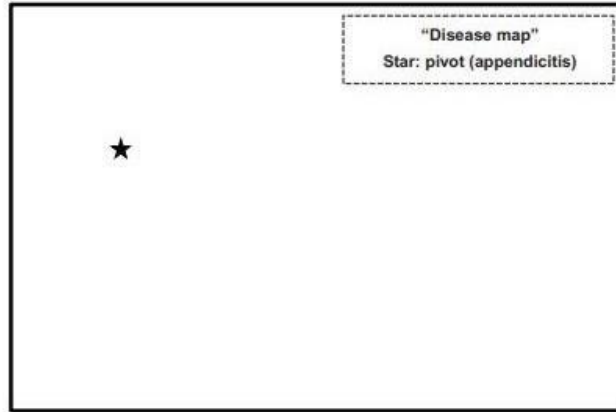


Figure 1 The pivot and cluster strategy is explained with a "disease map".
Notes: Suppose all diseases exist within the square frame called a "disease map" which includes all the identified diseases. Along with an initial diagnosis made by intuition of the physician, the pivot (star) diagnosis is plotted in the map. Concentric circles can be drawn a certain distance from the pivot. Dots that exist inside the circle are the clusters of this pivotal diagnosis. Diagnoses whose clinical pictures are very close to the pivotal diagnosis are distributed close to the pivotal disease. Thus, the distance between dots represents the similarity of the clinical picture of one specific diagnosis and another. Thinking of the cluster as a whole along with the pivotal diagnosis could minimize the cognitive defect in building differential diagnoses, thereby preventing biases in making diagnoses. The radius of the circle may depend on the physician's certainty of the diagnosis. The more concern the physician has about the differential diagnoses, the greater the radius would be.

Pivot and cluster strategy: a preventive measure against diagnostic errors

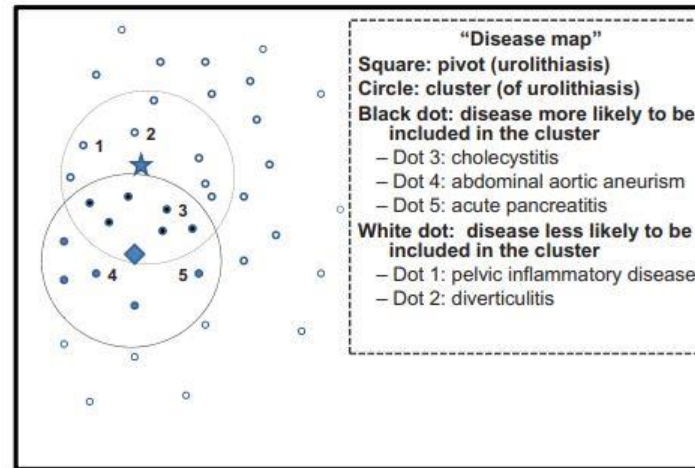


Figure 2 This figure depicts the overlap of two clusters of different pivots.
Notes: Two clusters (inside dashed and solid circle) overlap with some most likely differential diagnoses. That means the two clusters resemble in clinical manifestation (eg, left-sided abdominal pain), but differs in some points in making differentials (eg, exact location, radiation of pain).



<https://bit.ly/3bnkTkm>

Pivot and Cluster Strategyについて説明した論文

WEB PAPER

Effects of the use of differential diagnosis checklist and general de-biasing checklist on diagnostic performance in comparison to intuitive diagnosis

TARO SHIMIZU¹, KENTARO MATSUMOTO² & YASUHARU TOKUDA³

¹Nerima Hikarigaoka Hospital, Japan, ²National Medical Clinic, Japan, ³University of Tsukuba, Japan



System 2は難症例につよいが、
シンプルケースでは逆に診断の
正確性が落ちるということを示し
たクロスオーバー試験

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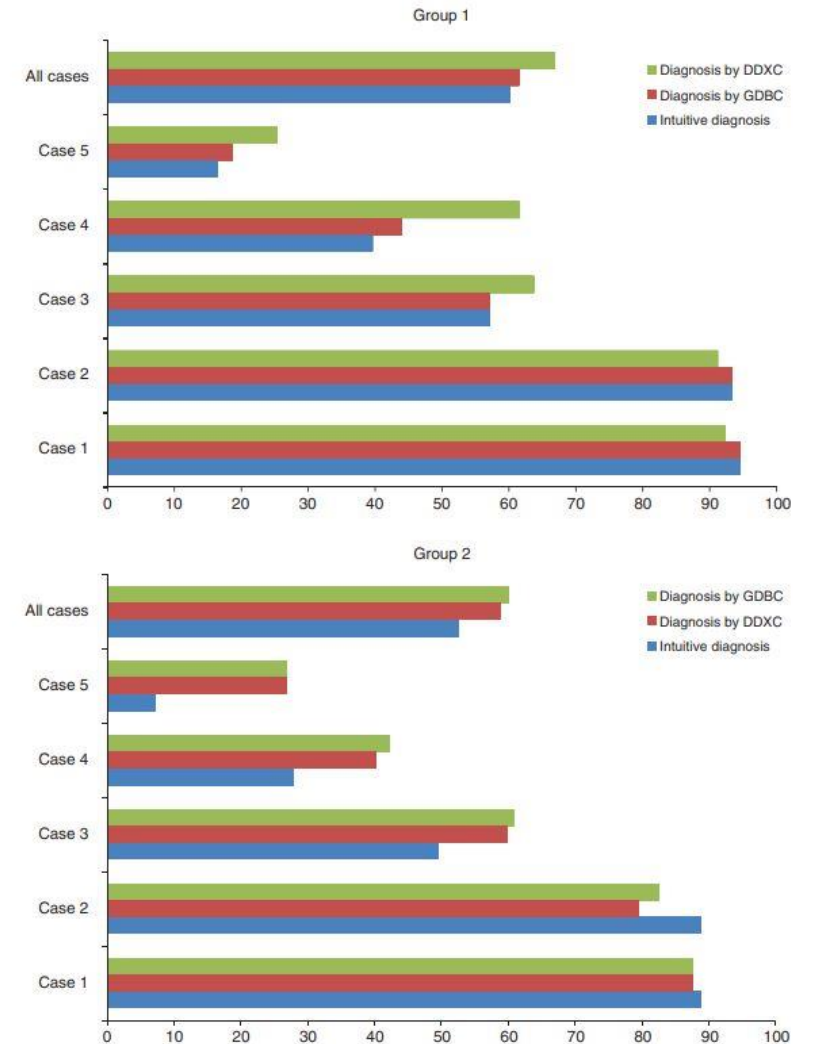
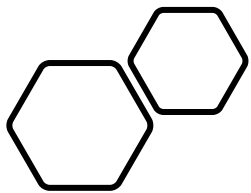


Figure 1. Proportions of correct diagnosis of intuitive diagnosis, diagnosis by GDBC, and diagnosis by DDXC by the groups 1 and 2.

Notes: The horizontal axis indicates the proportions of correct diagnosis. GDBC, general de-biasing checklist and DDXC, differential diagnosis checklist.



症候学





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DOI: 10.12998/wjcc.v7.i12.1393

ISSN 2307-8960 (online)

ORIGINAL ARTICLE

Case Control Study

Clinical differentiation of acute appendicitis and right colonic diverticulitis: A case-control study

Yosuke Sasaki, Fumiya Komatsu, Naoyasu Kashima, Takahiro Sato, Ikutaka Takemoto, Sho Kijima, Tadashi Maeda, Takamasa Ishii, Taito Miyazaki, Yoshiko Honda, Nagato Shimada, Yoshihisa Urita



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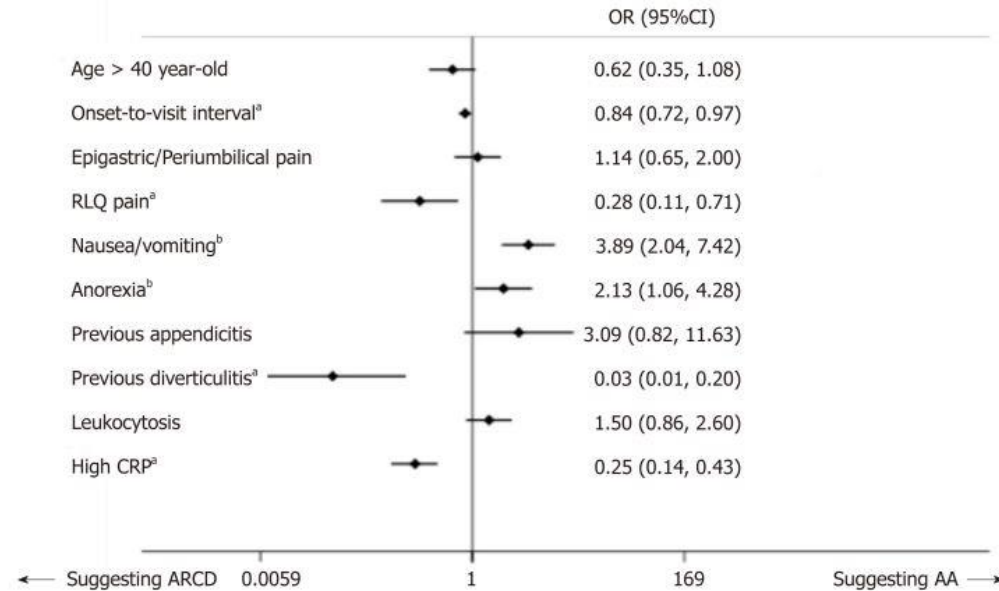


Figure 2 Forest plot of the logistic regression model for differentiating acute appendicitis from acute right colonic diverticulitis.^aLonger onset-to-visit interval, right lower quadrant pain, history of diverticulitis, and high serum C-reactive protein level (>3.0 mg/dL) at the time of visit have significantly low odds ratios (ORs), which suggests that acute right colonic diverticulitis (ARCD) is more likely rather than acute appendicitis (AA) (left side of the figure). ^bNausea/vomiting and anorexia have significantly high ORs, which suggests that AA is more likely rather than ARCD (right side of the figure). AA: Acute appendicitis; ARCD: Acute right colonic diverticulitis; CRP: C-reactive protein; OR: Odds ratio; RLQ: Right lower quadrant.

急性虫垂炎と上行結腸憩室炎の臨床的鑑別点を明らかにするための後方視的研究



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World J Clin Cases 2020 June 6; 8(11): 2127-2136

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ISSN 2307-8960 (online)

ORIGINAL ARTICLE

Case Control Study

Clinical prediction of complicated appendicitis: A case-control study utilizing logistic regression

Yosuke Sasaki, Fumiya Komatsu, Naoyasu Kashima, Takeshi Suzuki, Ikutaka Takemoto, Sho Kijima, Tadashi Maeda, Taito Miyazaki, Yoshiko Honda, Hiroaki Zai, Nagato Shimada, Kimihiko Funahashi, Yoshihisa Urita

単純性虫垂炎と複雑性虫垂炎の臨床的鑑別点を明らかにするための後方視的研究



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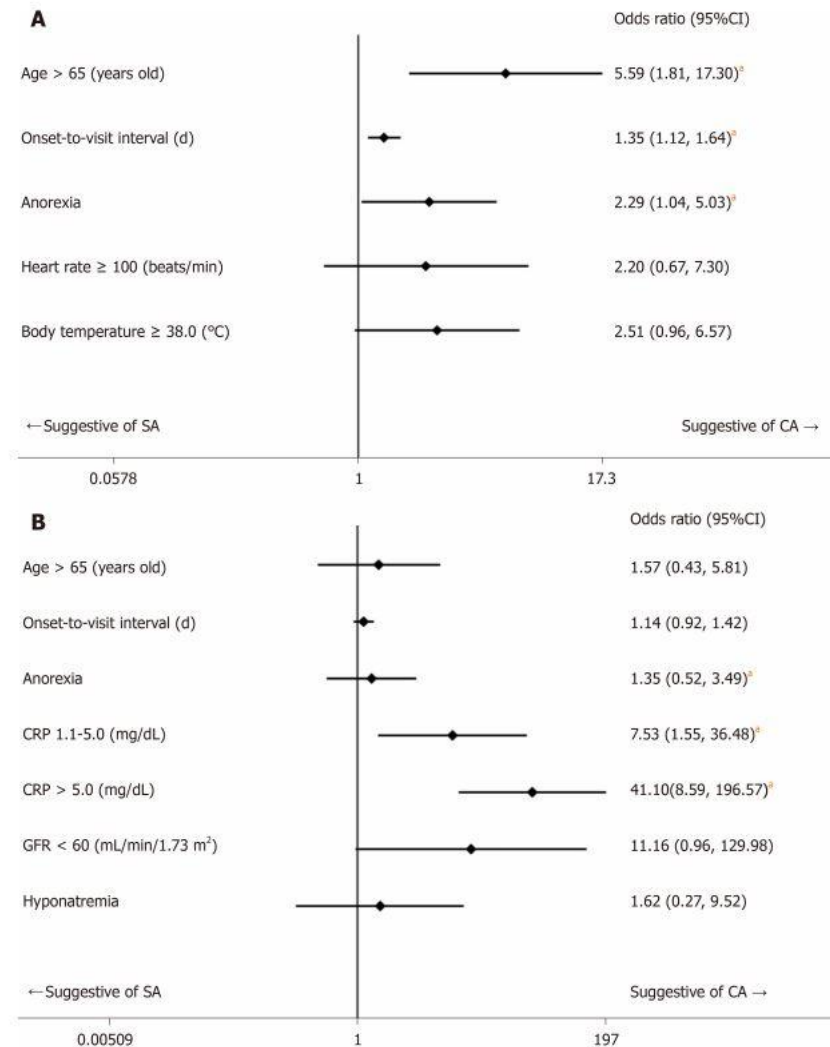


Figure 1 Forest plot of the logistic regression in Model 1 and Model 2. A: Model 1 (Non-laboratory factors only). *Age > 65 years old, longer onset-to-visit interval, and anorexia have significantly high odds ratios, which suggests that complicated appendicitis is more likely; B: Model 2 (including laboratory factors). *Only high CRP values have significantly high odds ratios, which suggests that complicated appendicitis is more likely. The odds ratio increases in proportion to the CRP value. CA: Complicated appendicitis; CI: Confidence interval; SA: Simple appendicitis; CRP: C-reactive protein; GFR: Glomerular filtration rate.



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Original Article

Clinical differentiation of infectious mononucleosis that is caused by Epstein-Barr virus or cytomegalovirus: A single-center case-control study in Japan

Takamasa Ishii, Yosuke Sasaki*, Tadashi Maeda, Fumiya Komatsu, Takeshi Suzuki, Yoshihisa Urita

Table 2
Logistic regression model for predicting EBV-IM using only H&P factors (model 1).

	Odds ratio [95% CI]	p-value
Age		
<31 years	1	N/A
31–40 years	0.31 [0.094–1.04]	0.057
>40 years	0.13 [0.027–0.65]	0.013
Interval from onset to visit (days)	0.91 [0.85–0.99]	0.021
Cervical lymphadenopathy	11.01 [2.46–49.19]	0.002
Pharyngitis	2.82 [0.77–10.30]	0.12
Headache	0.48 [0.16–1.38]	0.17
Facial edema	1	N/A
Tonsillar white coat	4.53 [1.02–20.19]	0.047
Abdominal tenderness	1.23 [0.20–7.60]	0.82
Classical triad	0.31 [0.042–2.27]	0.25

CI, confidence interval; EBV-IM, infectious mononucleosis caused by the Epstein-Barr virus; H&P, history and physical examinations; N/A, not applicable.

Table 3
Logistic regression model for predicting EBV-IM using H&P factors, imaging results, and blood counts (model 2).

	Odds ratio [95% CI]	p-value
Age		
<31 years	1	N/A
31–40 years	0.21 [0.045–0.98]	0.048
>40 years	0.024 [0.0024–0.24]	0.002
Interval from onset to visit (days)	0.92 [0.84–1.01]	0.074
Cervical lymphadenopathy	12.0 [3.09–46.59]	<0.001
Tonsillar white coat	6.80 [1.21–38.18]	0.029
Hepatosplenomegaly	5.65 [1.52–21.03]	0.01
Leukocytosis	8.11 [1.68–39.11]	0.009
Atypical lymphocytes		
<11%	1	N/A
11–30%	29.27 [2.86–299.25]	0.004
>30%	12.13 [1.92–76.57]	0.008
Thrombocytopenia	3.61 [0.83–15.80]	0.088

CI, confidence interval; EBV-IM, infectious mononucleosis caused by the Epstein-Barr virus; H&P, history and physical examinations; N/A, not applicable.

EBVとCMVによる伝染性単核球症の臨床症状の鑑別点を調べた後方視的研究

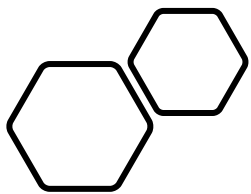


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Table 4
Logistic regression model for predicting EBV-IM using hepatobiliary biomarkers (model 3).

	Odds ratio [95% CI]	p-value
Age		
<31 years	1	N/A
31–40 years	0.24 [0.049–1.24]	0.082
>40 years	0.029 [0.0036–0.24]	0.001
Cervical lymphadenopathy	7.13 [1.89–26.95]	0.004
Tonsillar white coat	12.20 [1.67–89.23]	0.014
Hepatosplenomegaly	2.51 [0.70–9.03]	0.16
Leukocytosis	3.01 [0.64–14.11]	0.16
Atypical lymphocytes		
<11%	1	N/A
11–30%	11.51 [1.03–129.01]	0.048
>30%	4.53 [0.67–30.57]	0.12
ALT		
<41 IU/L	1	N/A
41–200 IU/L	0.33 [0.043–2.57]	0.29
>200 IU/L	0.25 [0.013–4.95]	0.37
LDH		
<251 IU/L	1	N/A
251–500 IU/L	17.65 [1.08–289.53]	0.044
>500 IU/L	13.01 [0.62–274.83]	0.099
ALP		
<351 IU/L	1	N/A
351–500 IU/L	0.50 [0.062–4.06]	0.52
>500 IU/L	3.23 [0.30–34.3]	0.33
GGT		
<51 IU/L	1	N/A
51–300 IU/L	11.11 [1.46–71.48]	0.02
>300 IU/L	11.82 [0.41–337.04]	0.15

ALP, alkaline phosphatase; ALT, alanine aminotransferase; CI, confidence interval; CRP, C-reactive protein; EBV-IM, infectious mononucleosis caused by the Epstein-Barr virus; GGT, gamma-glutamyl transferase; LDH, lactate dehydrogenase; N/A, not applicable.



在宅・地域医療

RESEARCH ARTICLE

Open Access

Feedback of patient survey on medication improves the management of polypharmacy: a pilot trial



Yuta Hirose^{1*}, Kiyoshi Shikino¹, Yoshiyuki Ohira^{1,2}, Sumihide Matsuoka³, Chihiro Mikami³, Hayami Tsuchiya³, Daiki Yokokawa¹, Akiko Ikegami¹, Tomoko Tsukamoto¹, Kazutaka Noda¹, Takanori Uehara¹ and Masatomi Ikusaka¹

Abstract

Background: Patient awareness surveys on polypharmacy have been reported previously, but no previous study has examined the effects of sending feedback to health professionals on reducing medication use. Our study aimed to conduct a patient survey to examine factors contributing to polypharmacy, feedback the results to health professionals, and analyze the resulting changes in the number of polypharmacy patients and prescribed medications.

Methods: After conducting a questionnaire survey of patients in Study 1, we provided its results to the healthcare professionals, and then surveyed the number of polypharmacy patients and oral medications using a before-after comparative study design in Study 2. In Study 1, we examined polypharmacy and its contributing factors by performing logistic regression analysis. In Study 2, we performed a t-test and a chi-square test.

Results: In the questionnaire survey, significant differences were found in the following 3 items: age (odds ratio (OR) = 3.14; 95% confidence interval (CI) = 2.01–4.91), number of medical institutions (OR = 2.34; 95%CI = 1.50–3.64), and patients' difficulty with asking their doctors to deprescribe their medications (OR = 2.21; 95%CI = 1.25–3.90). After the feedback, the number of polypharmacy patients decreased from 175 to 159 individuals and the mean number of prescribed medications per patient decreased from 8.2 to 7.7 ($p < 0.001$, respectively).

Conclusions: Providing feedback to health professionals on polypharmacy survey results may lead to a decrease in the number of polypharmacy patients. Factors contributing to polypharmacy included age (75 years or older), the number of medical institutions (2 or more institutions), and patients' difficulty with asking their physicians to deprescribe their medications. Feedback to health professionals reduced the percentage of polypharmacy patients and the number of prescribed medications.

Trial registration: UMIN. Registered 21 June 2020 - Retrospectively registered, <https://www.umin.ac.jp/ctr/index-j.htm>

Keywords: Feedback, Polypharmacy, Questionnaire, Health professions



<https://bit.ly/3tznz4A>

Table 5 Results: Interview following survey results feedback

	Yes, n (%)	No, n (%)	
1 Are the survey results useful for understanding the current state of polypharmacy patients?	12 (100)	0 (0)	
2 Will the medical care you provide change now that you know the survey results?	12 (100)	0 (0)	
3 Were the survey results unexpected?	12 (100)	0 (0)	
	More than expected, n (%)	As expected, n (%)	Less than expected, n (%)
(1) Percentage of polypharmacy patients	7 (58.3)	4 (33.3)	1 (8.4)
(2) Felt prescriptions were necessary	4 (33.3)	6 (50.0)	2 (16.7)
(3) Anxiety about reducing medicine	3 (25.0)	7 (58.3)	2 (16.7)
(4) Understanding the reason for the prescription	11 (91.6)	1 (8.4)	0 (0)
(5) Difficulty talking about reducing medicine	1 (8.4)	7 (58.3)	4 (33.3)

Results of the interviews with the 12 health professionals. Participants who answered Yes to the question "Were the survey results unexpected" were instructed to respond to questions (1) to (5) by choosing either "more than expected," "as expected," or "less than expected"

地域医療機関と連携した研究。ポリファーマシーの実態調査とフィードバックによる介入効果について検討。

RESEARCH ARTICLE

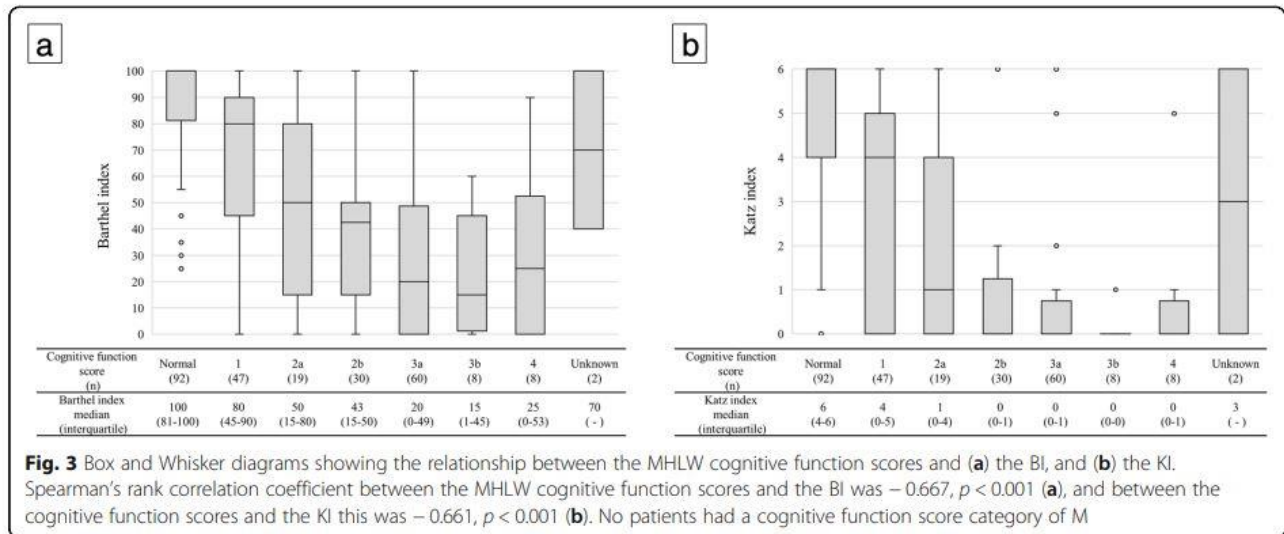
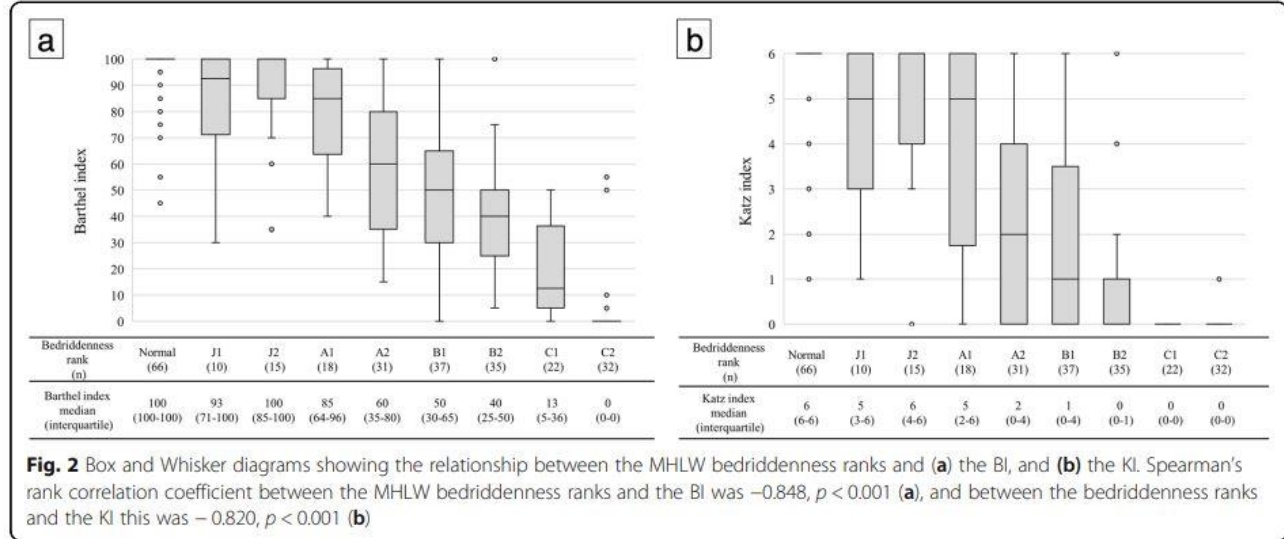
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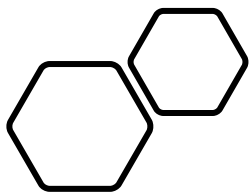
High inter-rater reliability of Japanese bedriddenness ranks and cognitive function scores: a hospital-based prospective observational study

Masaki Tago^{1*}, Naoko E. Katsuki¹, Shizuka Yaita¹, Eiji Nakatani^{2,3}, Shun Yamashita¹, Yoshimasa Oda⁴ and Shu-ichi Yamashita¹



寝たきり度、認知度の評価者間信頼性と基準関連妥当性を検証





総合診療教育



RESEARCH ARTICLE

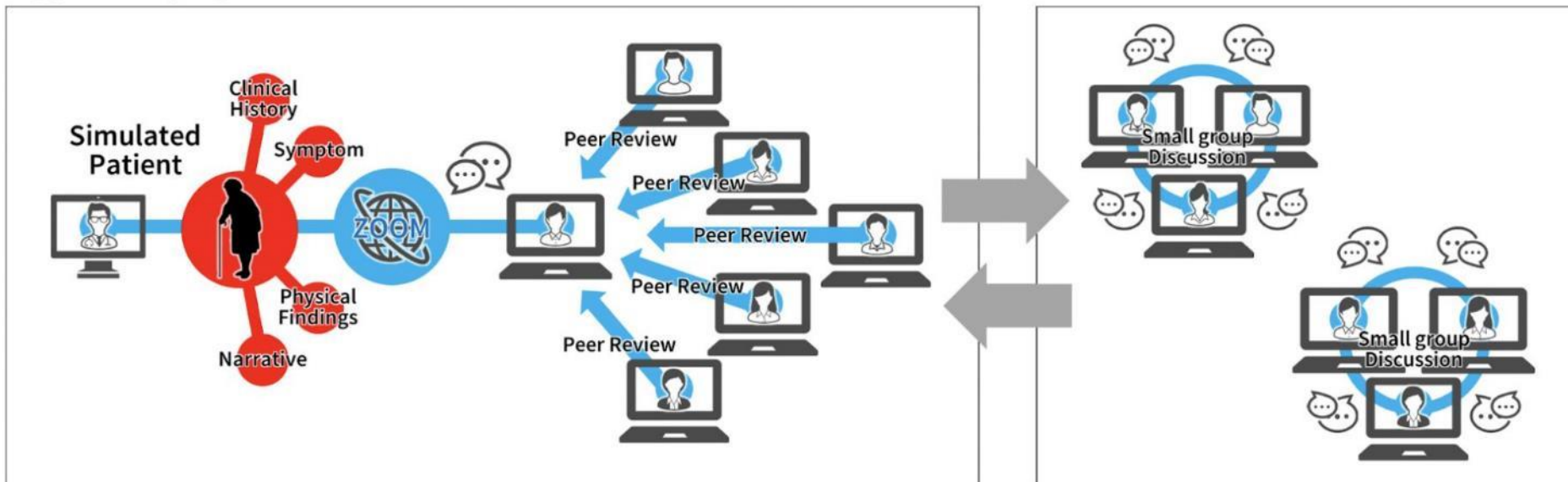
Open Access

Alternative approaches for clinical clerkship during the COVID-19 pandemic: online simulated clinical practice for inpatients and outpatients—A mixed method



Hajime Kasai^{1,2*}, Kiyoshi Shikino^{1,3}, Go Saito², Tomoko Tsukamoto^{1,3}, Yukiko Takahashi², Ayaka Kuriyama², Kazuhisa Tanaka⁴, Misaki Onodera⁵, Hidetaka Yokoh⁵, Koichiro Tatusmi², Ichiro Yoshino⁴, Masatomi Ikusaka³, Seiichiro Sakao² and Shoichi Ito^{1,5}

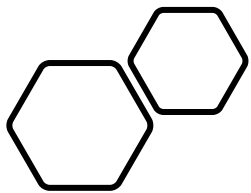
Supplementary Figure 3. Process of online virtual medical interviews.



総合診療科の臨床実習で教育手法(オンライン)をそのままリサーチにした。教育自体を研究に落とし込むことで、インセンティブを。



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診断エラー



[ORIGINAL ARTICLE]

Malpractice Claims of Internal Medicine Involving Diagnostic and System Errors in Japan

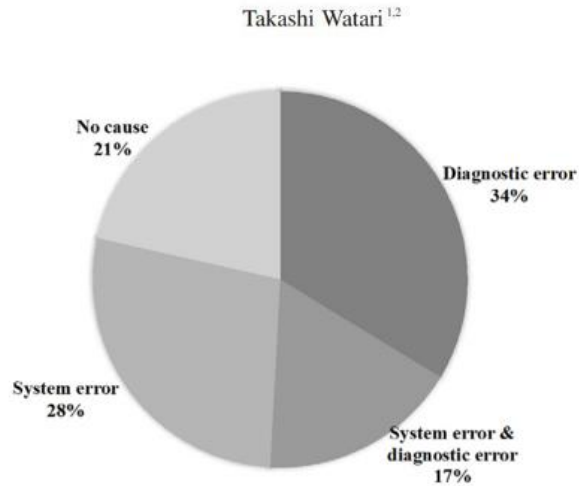


Figure 2. Causes of malpractice claims against internists in Japan (n=419).

我が国の内科医に対する医療訴訟 (n=419)

患者側勝訴（内科医敗訴）システムエラーこそ圧倒的に変革と改善が必要かもしれない。
夜勤の調整、悪性腫瘍を想起した時、etc

Table 4. Multiple Logistic Regression Analysis of Factors Causing Internists to Lose Claims Cases.

Factors	Adjusted Odds Ratio	95% CI	z	p value
System error	21.37	11.24-40.60	9.35	<0.001
Diagnostic error	6.26	3.31-11.83	5.65	<0.001
Small hospital size	1.44	0.80-2.58	1.22	0.224
Outpatient office	1.78	0.96-3.32	1.83	0.068
Ward	1.30	0.69-2.47	0.82	0.415
Night shift	2.49	1.16-5.36	2.34	0.019
Death	0.70	0.40-1.23	-1.23	0.217
Defendant is individual doctor	1.14	0.65-2.00	0.44	0.657
1st diagnosis: No abnormality	1.13	0.60-2.12	0.37	0.709
1st diagnosis: Ischaemic heart disease	1.79	0.76-4.23	1.32	0.185
1st diagnosis: Malignant neoplasm	3.44	1.30-9.10	2.5	0.013

The odds ratios (OR) and 95% confidence intervals (CI) are reported. System error, diagnostic error, small hospital size, death, outpatient office, ward, night shift, and each selected initial diagnosis (no abnormality, ischaemic heart disease, malignant neoplasm) were incorporated in the multiple logistic regression analysis.



<https://bit.ly/2QeNCjY>

PLOS ONE

RESEARCH ARTICLE

Factors and impact of physicians' diagnostic errors in malpractice claims in Japan

Takashi Watari^{1*}, Yasuharu Tokuda², Shohei Mitsuhashi³, Kazuya Otuki³, Kaori Kono³, Nobuhiro Nagai³, Kazumichi Onigata¹, Hideyuki Kanda⁴

1 Postgraduate Clinical Training Center, Shimane University Hospital, Izumo, Shimane, Japan, **2** Okinawa Muribushi Project for Teaching Hospitals, Okinawa, Japan, **3** Shimane University Faculty of Medicine, Izumo, Shimane, Japan, **4** Department of Environmental Medicine & Public Health, Shimane University Faculty of Medicine, Izumo, Shimane, Japan

我が国の医療訴訟の診断エラー訴訟に対する関連要因を示した

Table 5. Results of multiple logistic regression analysis of DERC.

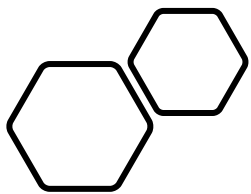
	Unadjusted OR (95% CI)	P-value	Adjusted OR (95% CI)	P-value
Department of Internal Medicine	1.86 (1.50–2.32)	< 0.001	1.42 (1.10–1.83)	0.007
Department of Surgery	1.28 (1.01–1.63)	0.041	1.55 (1.18–2.03)	0.001
Department of Emergency Medicine	3.89 (1.22–12.47)	0.022	2.84 (0.79–10.2)	0.109
Small hospital (beds<100)	1.45 (1.15–1.83)	0.002	1.29 (1.00–1.67)	0.048
General exam room	2.79 (2.21–3.53)	< 0.001	2.87 (2.22–3.71)	< 0.001
Emergency room	6.42 (4.01–10.28)	< 0.001	5.88 (3.51–9.83)	< 0.001
Nighttime	1.56 (1.19–2.03)	0.001	1.26 (0.92–1.73)	0.146
Initial diagnosis				
Respiratory tract infection	3.00 (1.86–4.83)	< 0.001	2.39 (1.44–4.0)	0.001
Non-bleeding digestive tract disease	3.96 (2.16–7.27)	< 0.001	3.24 (1.71–6.14)	< 0.001
No abnormality	8.11 (3.77–17.43)	< 0.001	7.07 (3.2–15.61)	< 0.001

The odds ratios (OR) and 95% confidence intervals (CI) are reported. Department, small hospital size, general exam room, emergency room, night shift, and each selected initial diagnosis (respiratory tract infection, non-bleeding digestive tract disease, or no abnormality) were incorporated in the multiple logistic regression analysis.

DERC: Diagnostic error-related claims



<https://bit.ly/3f9oVxL>



身体診察



Research Letter | Medical Education

Effect of the iExaminer Teaching Method on Fundus Examination Skills A Randomized Clinical Trial

Kiyoshi Shikino, MD, PhD; Shingo Suzuki, MD, PhD; Yusuke Hirota, MD, PhD; Makoto Kikukawa, MD, PhD; Masatomi Ikusaka, MD, PhD

身体診察教育の新しい方法を考え、
検証した研究。特に、教えにくい眼底
診察に着目した。

Figure. The iExaminer Teaching Method vs the Traditional Teaching Method

A The iExaminer teaching method



B The traditional teaching method



A, Faculty taught fundus examination skills while sharing a screen with the students. B, Faculty taught fundus examination skills while students described what they saw. As guidance, faculty advised students about their grip, posture, procedure, angle, and light intensity in each group. All participants had watched instructional videos on standard use of the PanOptic ophthalmoscope and had been prepared for the interpretation of typical fundus findings 1 day before the educational session.



<https://bit.ly/3eJRB1v>

— Original article —

The diagnostic value of Reversed Carnett's sign for detecting intra-abdominal lesion in patients with acute abdominal pain

Takanobu Hirosawa¹⁾ Yukinori Harada¹⁾ Toshihiro Nishinobu²⁾ Yuki Honda³⁾
 Kohei Morinaga¹⁾ Hiroshi Takase⁴⁾ Taro Shimizu¹⁾※

- 1) Department of Diagnostic and Generalist Medicine, Dokkyo Medical University
- 2) Department of General Internal Medicine, Kaisei Hospital
- 3) Department of General Internal Medicine, Seirei Hamamatsu General Hospital
- 4) Department of Emergency Medicine, Sendai City Hospital

Table 2 Difference in physical examination between patients positive and negative for intra-abdominal disease

Variable	Intra-abdominal disease (n = 34)	No Intra-abdominal disease (n = 17)	P value*
Reversed Carnett's sign, n(%)	11 (32.4)	7 (41.1)	0.99
Guarding, n(%)	2 (5.9)	1 (5.9)	1.00
Rigidity, n(%)	2 (5.9)	0 (0)	0.99
Percussion tenderness, n(%)	12 (47.1)	8 (47.1)	0.99
Rebound tenderness, n(%)	6 (17.6)	1 (5.9)	0.99
Murphy sign, n(%)	3 (8.8)	2 (11.8)	0.99
Oburator sign, n(%)	4 (11.7)	2 (11.8)	0.99
Cough sign, n(%)	7 (20.6)	9 (52.9)	0.99
Heel drop sign, n(%)	8 (23.5)	6 (17.6)	0.34
Psoas sign, n(%)	4 (11.8)	1 (5.9)	0.99

* P values by chi-squared, Mann-Whitney U test, or Fisher's exact test.

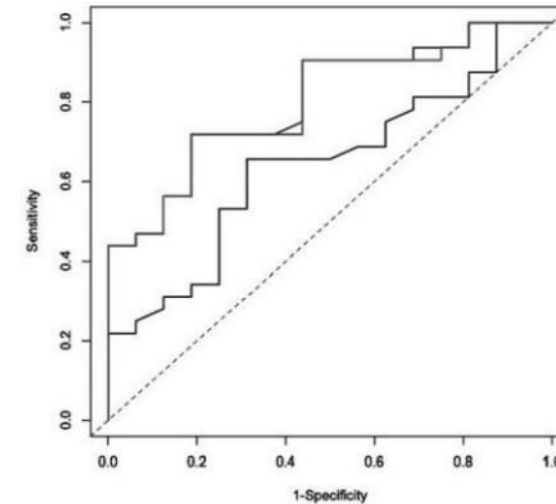


Figure 3

Area under receiver operating characteristic curves for baseline variables (black line), baseline variables + WBC (blue line), baseline variables + WBC + rCarnett's sign (red line)
 WBC, white blood cells

外来での腹痛患者に対する逆カーネット徴候が腹腔内疾患の予測に有用かを調査した前方視的研究。



<https://bit.ly/3fohRxI>

— Original article —

The diagnostic value of Reversed Carnett's sign for detecting intra-abdominal lesion in patients with acute abdominal pain

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Table 5 Area under the receiver operating characteristic curve of the Prediction Models for intra-abdominal diseases

Model	AUROC curve (95% CI)	P value
Baseline variables*	0.64 (0.48-0.80)	
Baseline variables + WBC	0.8 (0.68-0.923)	0.05**
Baseline variables + WBC + rCarnett's	0.8 (0.67-0.93)	0.33***

AUROC = Areas under the receiver operating characteristic curves.

CI = confidence interval, WBC = White blood cell.

* Including age, sex

** Compared with the model with baseline variables.

***Compared with the model with baseline variables + WBC

Table 4 Areas under the receiver operating characteristic curves of reversed Carnett's sign, total white blood cell count, and CRP as potential markers of intra-abdominal diseases identified through univariate analysis

Variable	Cut-off value	AUROC curve (95% CI)	P value
Reversed Carnett's sign		0.46 (0.31-0.60)	0.53
White cell count*	> 7,299 cells/mm ³	0.78 (0.63-0.93)	0.01
CRP*, mg/l	> 18.0 mg/l	0.50 (0.32-0.68)	0.33

AUROC = Areas under the receiver operating characteristic curves.

CI = confidence interval, CRP = C-reactive protein.

*N = 48 because of no data.

外来での腹痛患者に対する逆カーネット徴候が腹腔内疾患の予測に有用かを調査した前方視的研究。



<https://bit.ly/3fohRxI>

[PICTURES IN CLINICAL MEDICINE]

Preauricular Vertical Creases

Taro Shimizu and Yukinori Harada

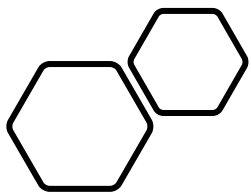


Picture.



<https://bit.ly/3uM1EZu>

Frank signと同等の意味を持つ可能性のある
新しいフィジカルサインの提案。



病院管理・経営



Original Paper

Impact of a Commercial Artificial Intelligence–Driven Patient Self-Assessment Solution on Waiting Times at General Internal Medicine Outpatient Departments: Retrospective Study

Yukinori Harada^{1,2}, MD; Taro Shimizu¹, MD, MPH, MBA, PhD

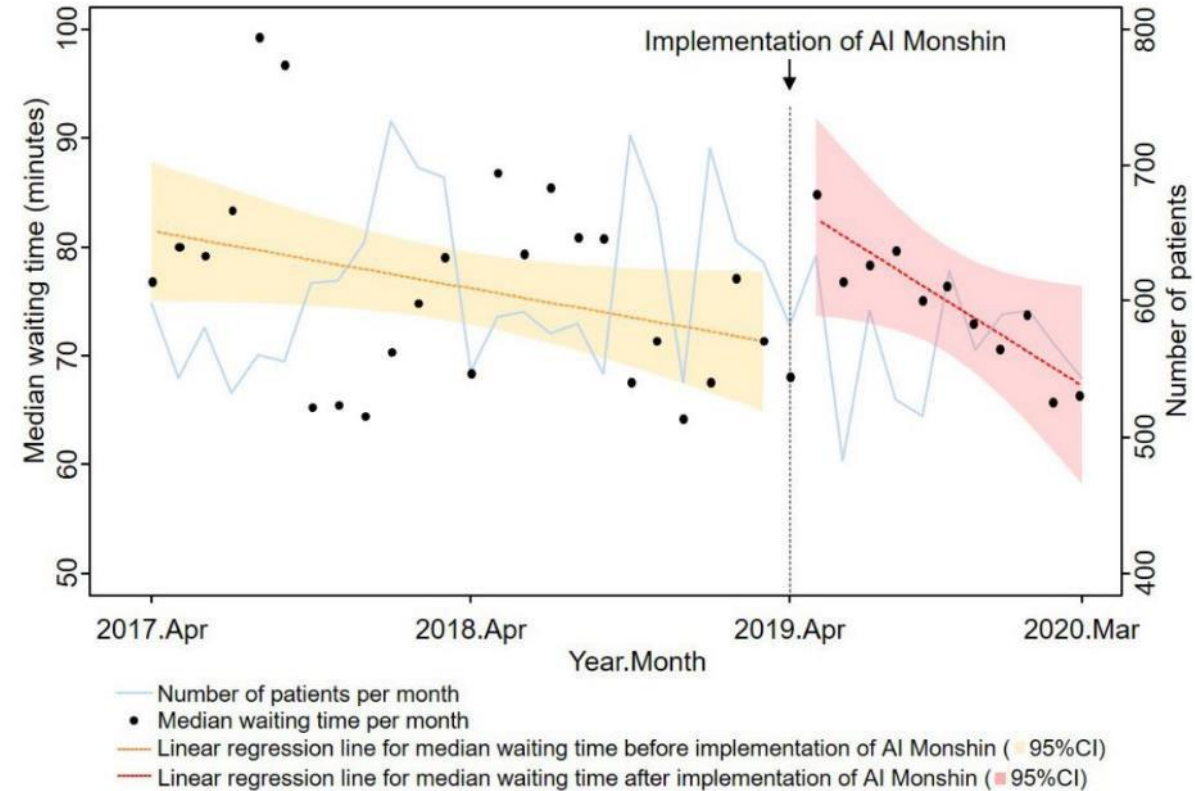
¹Department of Diagnostic and Generalist Medicine, Dokkyo Medical University, Mibu, Japan

²Department of General Internal Medicine, Nagano Chuo Hospital, Nagano, Japan



<https://bit.ly/2RPDezl>

Figure 2. The trend in median waiting time and number of patients per month from April 2017 to April 2020.



AI問診の使用が患者の待ち時間を短縮したかどうかを検討した後方視的研究

The Choosing Wisely Initiative and MRIs: Over- and Under-Diagnosis in Japan and Myanmar

Takashi Watari ^{1,2}, Tin Myo Hlaing ³, Hideyuki Kanda ⁴

ミャンマーと日本のMRI利用可能・
インフラ状況の比較から神経所見
よりも画像偏重の診療への
Choosing wiselyの提案



<https://bit.ly/2RM1nXE>

Total Number of Hospitals	8,842	1,302
Total Number of Clinics (general and dental)	170,469	4,687
Total Number of Patients (outpatients)	496,206,937	10,190,000
Total Number of Patients (in-patients)	457,781,586	2,754,000
Total Number of Doctors	311,205	32,861
Total Number of Nurses	1,149,397	32,609
Total Number of Clinical Radiologic Technologists	44,375	N/A
Doctors per 1000 Population Ratio	2.35	0.6
Nurses per 1000 Population Ratio	9.06	0.53
Clinical Radiologic Technologists Ratio	0.34	N/A

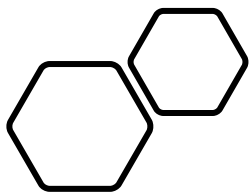
Table 1: Comparative studies on healthcare resources between Myanmar and Japan

The difference in healthcare facilities and manpower determined the difference in the health status in Myanmar and Japan. These data were extracted from the national-level data of both countries and the current practices of the healthcare sector in 2016.

Comparative Studies	Japan 2016	Myanmar 2016
GDP per Capita	\$38,972	\$1,195
Number of MRIs	6508	16
Number of MRI Exams per Month	961.5	N/A
Total Cost of MRI Exams per Scan	\$200	\$60/\$150*
Cost of MRI per Scan (individual cost)	\$60	\$60/\$150*
Cost of MRI per Portion (public cost)	\$140	N/A
Waiting Time for MRI Exams	N/A	2-3 weeks
MRI Accessible Hospitals	300 bedded and more	500 bedded and more

Table 2: Comparative studies on the resources and usage of MRI

The current practice and usage of MRI in Myanmar and Japan. There is no MRI machine in the rural areas of both countries.



組織運宮



Post-COVID-19: Designing the new normal in general medicine

TABLE 1 Potential changes to the medical system in the post-COVID-19 era

	Pre-COVID-19	Post-COVID-19
Changes in the job description of a general physician in Japan "Clinical practice, education, research"	Face-to-face meetings including outpatient clinics and home visits are the norm. Education, meetings, and conferences are mostly conducted in person. Classes and lectures are provided in real time by the instructor. Clinical clerkships are mainly conducted in real clinical settings. Research is limited to universities and some hospitals, and conducting research has been difficult in remote areas for solo practitioners	Online treatment and prescriptions are applied in clinical practice. Advances in diagnostic aid technologies The online system promotes development of training and research across institutions. Clinical clerkship or training is provided on the go, with the addition of simulations, virtual reality, and online education. Online networks will make it easier to participate in research for solo practitioners working in remote areas
Changes in the way general physicians learn (Continuing Professional Development: CPD)	Learners mostly resort to a local society or training hospital to acquire their knowledge or skills. Basically, workshops and conferences are limited to those who directly participate in them. Role models and mentors of primary care physicians are often only close to the learner. Attendance at conferences requires physical mobility	Learning online, including on-demand content and live streaming. Sharing of education from a distance: liberating sophisticated conferences on the web for all learners. Role models are now easier to access from a distance. Attendance at conferences is possible online as well
Change in physician's workstyle	Workplace defines where the physician lives. Supplying primary care to remote areas requires physicians to stay there. Wages and compensation are paid in units of hours and days	Possibility of resolving time and space constraints enables diversity of working style. The importance of considering where you live decreases The evaluation parameters for physician's work may change

ポストコロナの総合診療のあり方
について、Narrative reviewで提示。



<https://bit.ly/3y7kdZS>



Research Letter | Medical Education

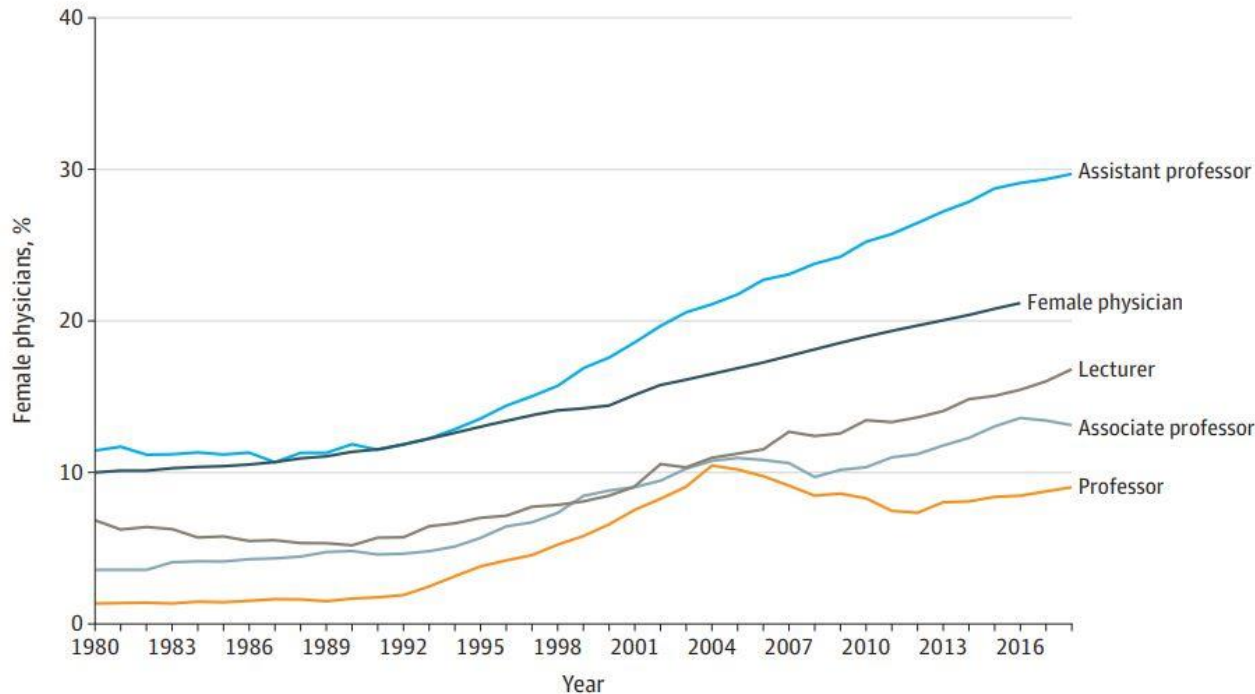
Assessment of Academic Achievement of Female Physicians in Japan

Kaori Kono, BA; Takashi Watari, MD, MS, MCTM; Yasuharu Tokuda, MD, MPH



<https://bit.ly/3bkvJaI>

Figure. Trends in the Proportion of Academic Positions for Female Physicians, Japan, 1980-2018



我が国の大学病院における女性医師のガラスの天井を経時的に示した革新的なデータ提示。

Primary care doctor fostering and clinical research training in Sweden: Implications for Japan

Takashi Watari MD, MS, MCTM¹ | Masahiro Hirose MD, PhD, DrPH² | Patrik Midlöv MD, PhD³ | Yasuharu Tokuda MD, MPH⁴ | Hideyuki Kanda MD, PhD⁵ | Masanobu Okayama MD, PhD⁶ | Hiroo Yoshikawa MD, PhD⁷ | Kazumichi Onigata MD, PhD¹ | Mikio Igawa MD, PhD⁸

スウェーデンと日本の総合診療医の実情と育成様式の違いをナラティブに検討し、プライマリーヘルケアセンター構想の導入の提案



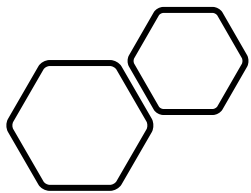
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TABLE 1 Comparison of demographic characteristics between Sweden and Japan

	Japan	Sweden
Population (millions)	127	9.6
Population density (person/km ²)	335	22
Average age (y)	46	41
Percentage of population over age 65	25	19
Urban population rate (%)	94	86
Immigrant population rate (%)	1.7	18
Life expectancy (y)	83.8	82.4
GDP per capita (USD)	38 972	51 845
Poverty rate (%)	16	9
Total health expenditure per capita in 2016 (USD)	4519	7919
Universal access and comprehensive coverage	Yes	Yes

TABLE 2 Comparison of the primary care physician fostering system between Sweden and Japan

	Japan	Sweden
Number of medical schools	82	7
Fixed number of medical students in each year	9000	2000
Year of medical school curriculum	6	5.5
Annual tuition fee (USD)		
Public	4600	Free
Private	44 642	
Duration of mandatory postgraduate training	2	1.5
Special training of primary care physician (y)	3	5
Registration with GP required	None	Yes
Mandatory clinical scientific methodology training	None	Yes
Primary care physician work setting	Mostly private	Majority is public PHC centers.
Primary care physicians who work at PHC centers	Very rare	Almost



デザイン



PLOS ONE

RESEARCH ARTICLE

New predictive models for falls among inpatients using public ADL scale in Japan: A retrospective observational study of 7,858 patients in acute care setting

Masaki Tago¹*, Naoko E. Katsuki¹, Yoshimasa Oda^{1,2}, Eiji Nakatani^{3,4}, Takashi Sugioka⁵, Shu-ichi Yamashita¹



<https://bit.ly/3hjjZcd>

Table 2. Multivariate logistic regression analysis for falls according to the two models.

Variable, Category (Reference)	Multivariate logistic regression using 13 factors (model 1)			Multivariate logistic regression using 8 factors (model 2)		
	OR	95% CI	P-value [†]	OR	95% CI	P-value [†]
Age category, ≥75 (<75)	1.0	1.0–1.0	0.169	1.0	1.0–1.0	0.146
Gender, Male (Female)	1.8	1.4–2.4	<0.001	1.8	1.3–2.3	<0.001
Emergency admission, Yes (No)	1.6	1.1–2.5	0.018	1.6	1.0–2.3	0.033
By ambulance, Yes (No)	0.8	0.5–1.1	0.214			
Referral medical letter, Presence (Absence)	1.2	0.9–1.5	0.321			
Department, Internal Medicine (Others)	1.2	0.8–1.8	0.421			
Department, Neurosurgery (Others)	2.1	1.3–3.4	0.003	1.9	1.2–3.1	0.008
Hypnotic, Using (Not using)	1.5	1.0–2.0	0.033	1.4	1.0–2.0	0.038
Hypnotic medicine, Missing category (Not using)	1.2	0.7–2.2	0.566	1.3	0.7–2.3	0.484
Permanent damage by stroke, Presence (Absence)	0.8	0.5–1.2	0.275			
History of falls, Presence (Absence)	1.5	1.1–2.1	0.008	1.5	1.1–2.1	0.008
Visual impairment, Presence (Absence)	0.9	0.4–2.0	0.848			
Eating, Independent (Requiring assistance)	1.3	0.9–1.9	0.204	1.3	0.9–1.8	0.214
Eating, Missing category (Requiring assistance)	0.4	0.2–0.7	0.002	0.4	0.2–0.7	0.002
Bedriddenness rank, J (Normal)	4.0	2.2–7.3	<0.001	4.0	2.2–7.2	<0.001
Bedriddenness rank, A (Normal)	6.4	3.8–11	<0.001	6.3	3.7–11	<0.001
Bedriddenness rank, B (Normal)	7.2	4.1–13	<0.001	6.8	3.9–12	<0.001
Bedriddenness rank, C (Normal)	6.1	3.3–11	<0.001	5.6	3.1–10	<0.001
Bedriddenness rank, Not assessable (Normal)	0.9	0.2–3.7	0.907	0.9	0.2–3.4	0.830

OR, odds ratio; CI, confidence interval. Bedriddenness rank: J, independence/autonomy; A, house-bound; B, chair-bound; C, bed-bound. Twelve factors using model 1 were all assessable at admission and had low collinearity with each other. Model 2 was designed as a parsimonious model using eight factors that had significance by multivariate logistic regression of model 1.

[†]P-value for Wald test.

寝たきり度を含む8項目のデータを用いて、ロジスティック回帰モデルによる簡便な転倒予測オリジナルモデルを開発。

PLOS ONE

RESEARCH ARTICLE

New predictive models for falls among inpatients using public ADL scale in Japan: A retrospective observational study of 7,858 patients in acute care setting

Masaki Tago¹*, Naoko E. Katsuki¹, Yoshimasa Oda^{1,2}, Eiji Nakatani^{3,4}, Takashi Sugioka⁵, Shu-ichi Yamashita¹



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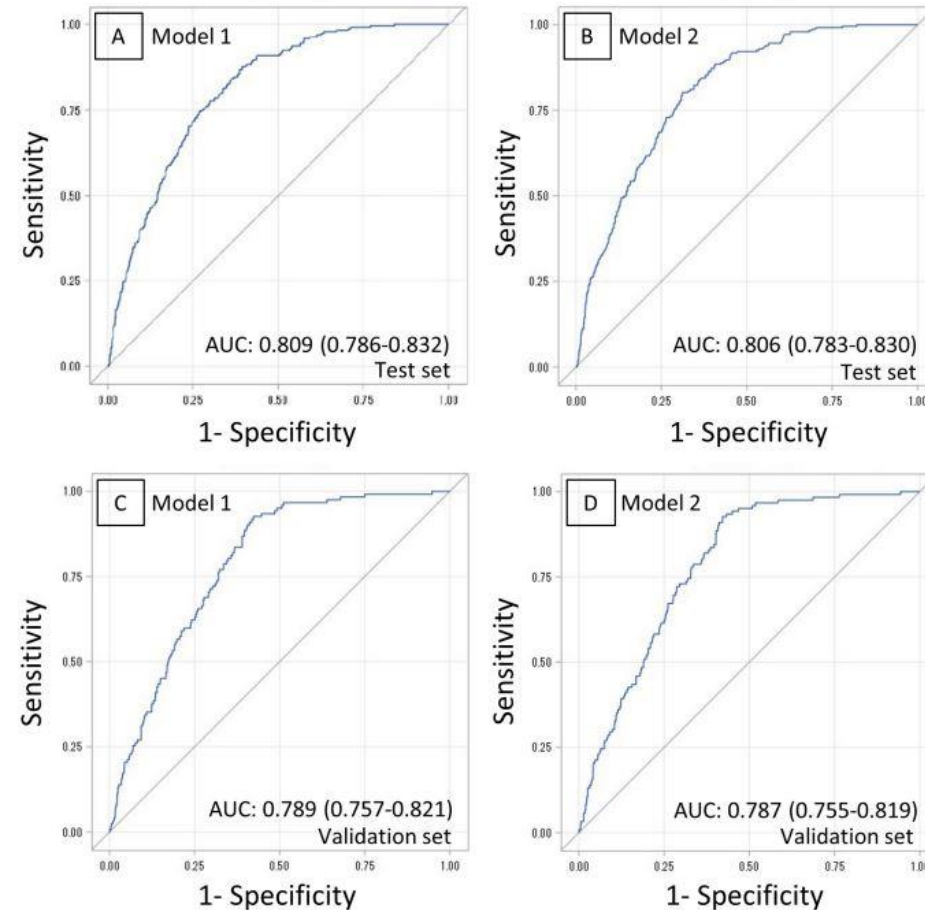


Fig 3. Receiver-operating characteristics (ROCs) and areas under the curves (AUCs). ROC derived from test set using model 1 (A), derived from test set using model 2 (B), derived from validation set using model 1 (C), and derived from validation set using model 2 (D). The AUCs using models 1 and 2, the test set, and the validation set are all above 0.7, and the discrimination ability of the models is good.

寝たきり度を含む8項目のデータを用いて、ロジスティック回帰モデルによる簡便な転倒予測オリジナルモデルを開発。



LETTER TO EDITOR

A new Japanese origami-style face shield made of waterproof paper and a transparent plastic sheet for use during the COVID-19 pandemic

M. Tago¹, K. Anzai² and S. Yamashita¹

Dear editor,

A severe worldwide shortage of personal protective equipment (PPE) during the COVID-19 pandemic, which has forced

healthcare workers to minimize their usage,¹ has led to the development of new PPE alternatives.²

Here, we introduce a new disposable paper face shield that can be easily assembled by Japanese origami-like folding

地元企業とともにコロナ禍のPPE不足解消のために紙製のフェイスシールドを開発。新しいアイデアの提案。



<https://bit.ly/3uHnixU>



Figure 1. Appearance of our new face shield.

QJM (2.529)

Masaki Tago, MD, PhD

OXFORD

LETTER TO EDITOR

A new Japanese origami-style face shield made of waterproof paper and a transparent plastic sheet for use during the COVID-19 pandemic

M. Tago¹, K. Anzai² and S. Yamashita¹

地元企業とともにコロナ禍のPPE不足解消のために紙製のフェイスシールドを開発。新しいアイデアの提案。



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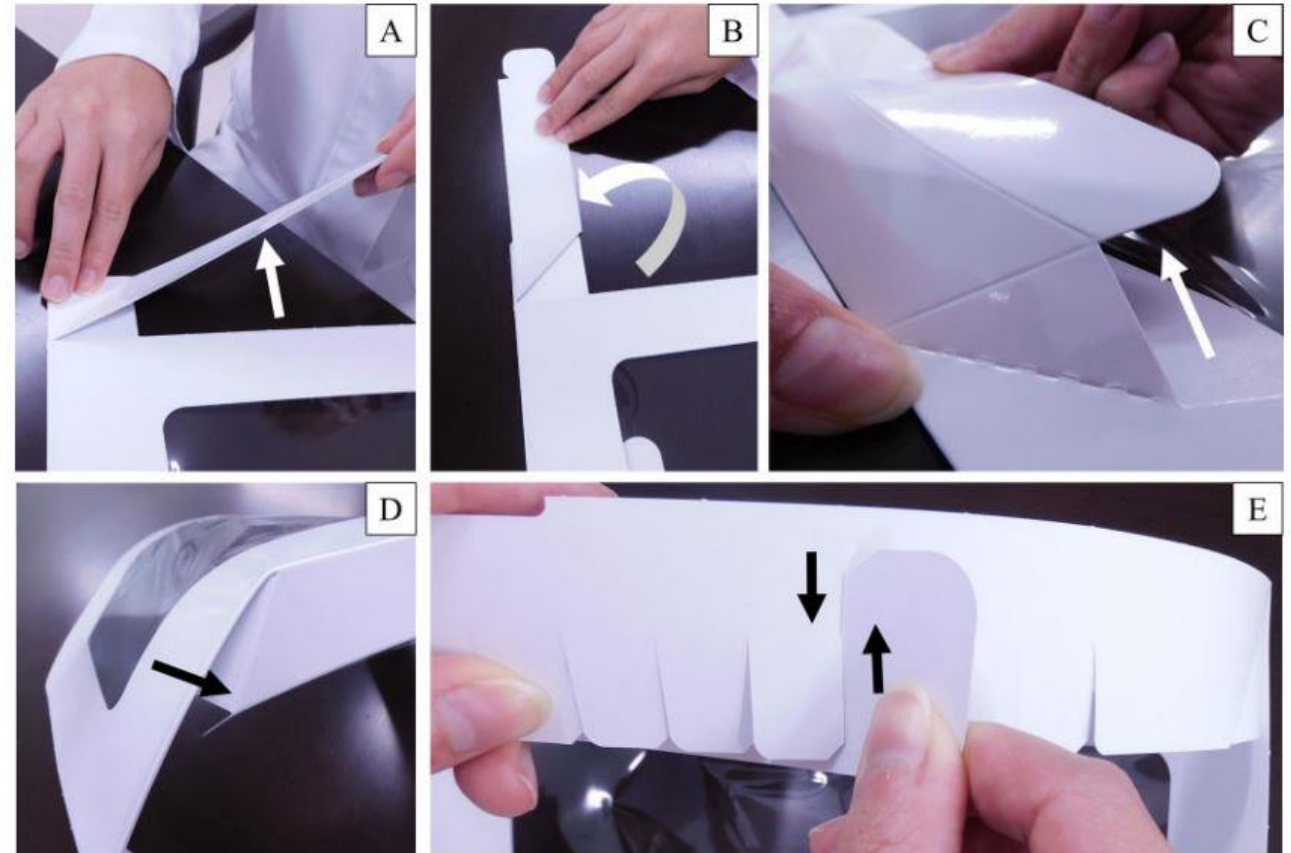


Figure 2. Face shield assembly procedure.

Construction of Two Box-Like Head-and-Face Shields by Japanese Origami Folding for Use During the COVID-19 Pandemic



<https://bit.ly/3tDCgUb>

地元企業とともにコロナ禍のPPE不足解消のために紙製のフェイスシールドを開発。その後改良版の提案。

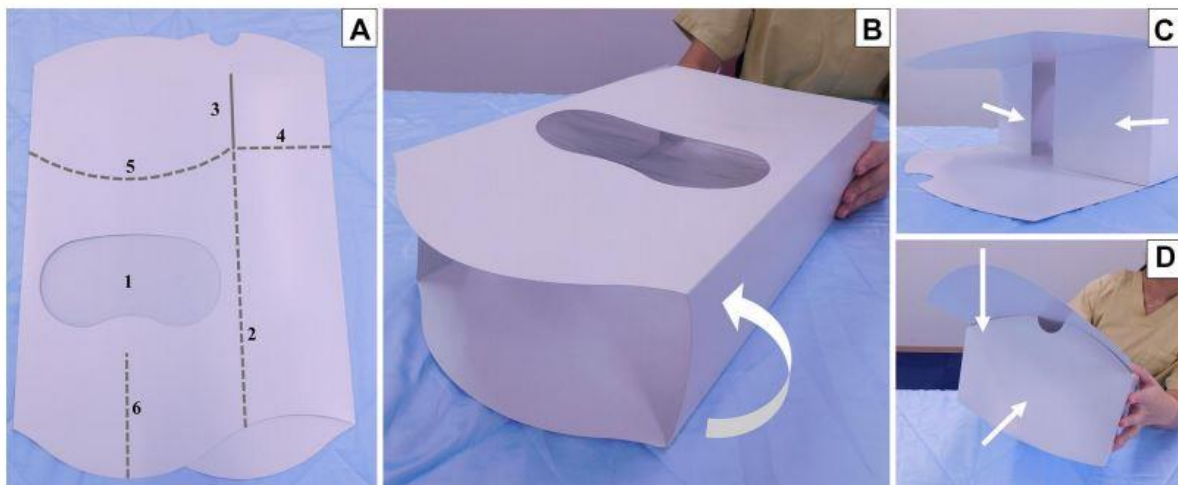


Figure 1 Model 1 of the box-like head-and-face shield and its assembly. (A) Front oblique view of the head-and-face shield before preparation and (B–D) the folding process used to prepare the shield for use. A box that is open at the top and bottom is flattened into a two-layer sheet. A face opening is cut and sealed with a thin plastic sheet (A-1) attached from the inside before folding. The dotted lines (A-2, 4, 5, 6) indicate where the paper is bent, and the straight line (A-3) denotes a pre-cut incision. The sheet is bent along the four straight dotted lines (one of them is shown as A-2) to form a three-dimensional box-like shape (arrow) (B). The four flaps separated by pre-cut incisions in the front, back, and sides at the top of the box (only one of which is shown as A-3) are then bent along the four dotted lines at the top part of the box (along both lateral sides, one of which is shown as straight dotted line A-4, and on the front and back, one of which is a line curved downward, A-5). Thus, the front and back flaps overlap each other (arrows) to form the head covering, and the box can hold its square shape (C, D). The front of the box is then bent in the middle under the chin along the dotted line (A-6) to form an obtuse angle, providing extra breathing space for the wearer.

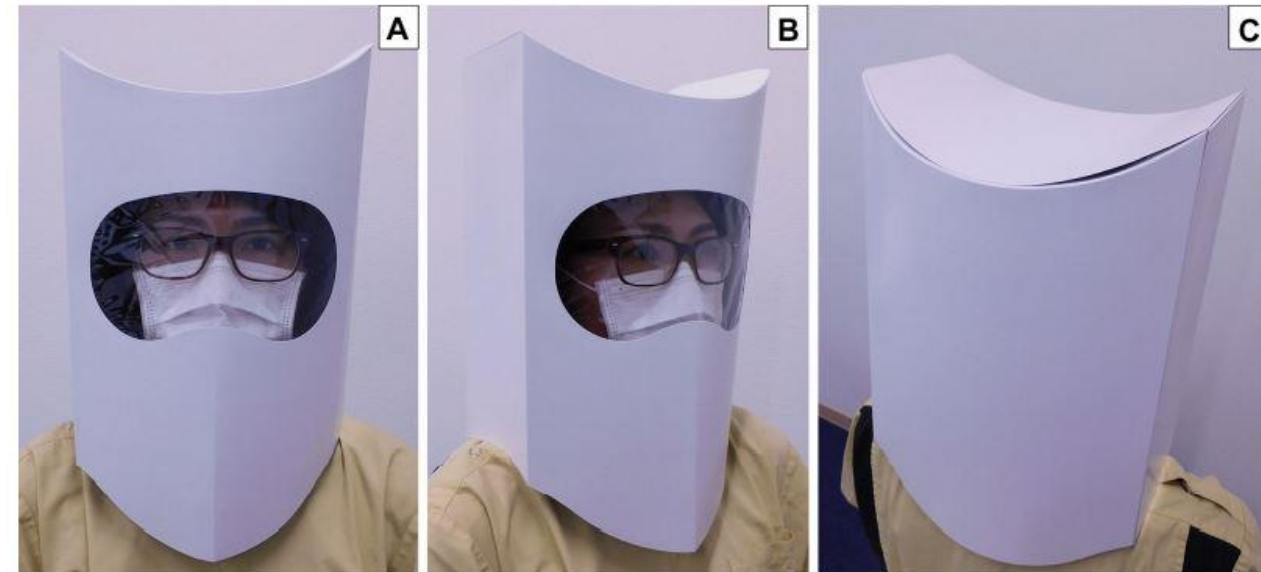


Figure 2 Images of a person wearing Model 1 of the proposed head-and-face shield. (A) Front, (B) front oblique, and (C) back oblique views. The visual field is wide enough to allow the wearer to administer medical care (A, B) while completely covering the wearer's head and neck (A, C). This shield can play the roles of a hair covering, goggles, and face shield, and the user can also wear glasses or a mask under the shield (A, B).

Construction of Two Box-Like Head-and-Face Shields by Japanese Origami Folding for Use During the COVID-19 Pandemic



<https://bit.ly/3tDCgUb>

地元企業とともにコロナ禍のPPE不足解消のために紙製のフェイスシールドを開発。その後改良版の提案。

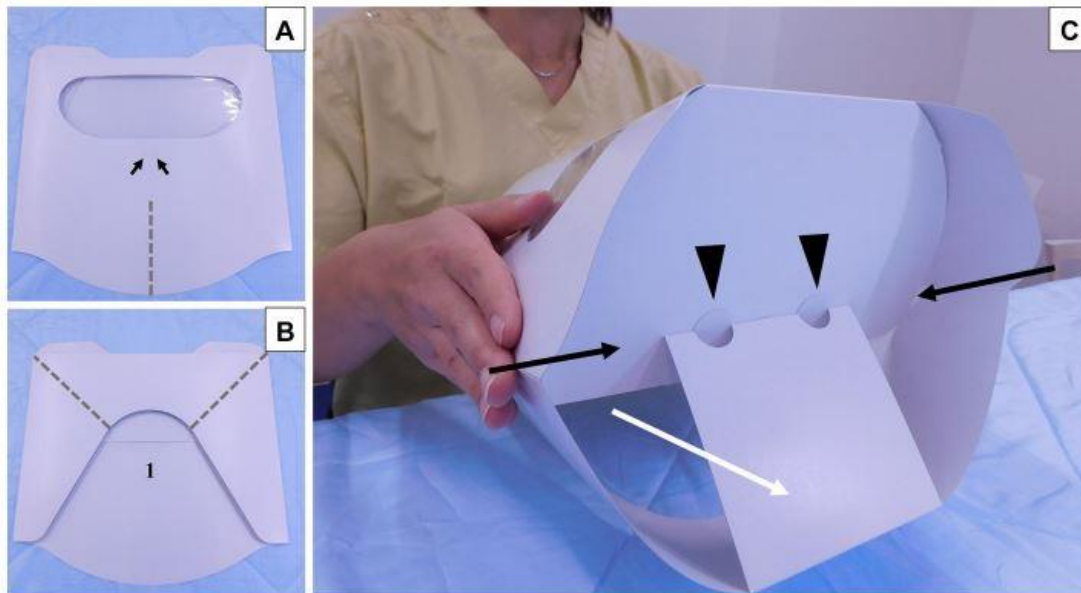


Figure 3 Model 2 of the box-like face shield and its preparation. (A) Front and (B) back oblique views of the face shield before folding. Although the front is similar to Model 1 (A), the lower part of the back is cut off (B-1). Pre-cut incisions, which are usually closed, are positioned near the nasal orifices, to make it possible to collect a nasal swab for viral testing while the patient is wearing the shield (A, black arrows). The sheet is bent along the dotted lines (A, B) upon preparation. This model is easily prepared by pushing on both sides toward the center (black and white arrows), which is made possible by gluing the top part of the back to the top part of the front in the center (arrowheads).

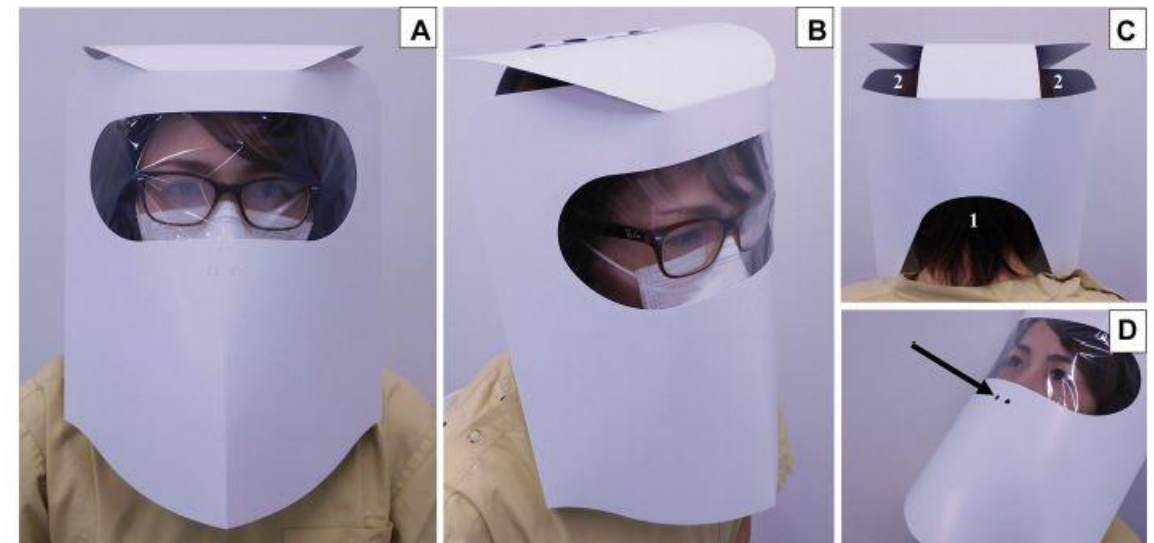
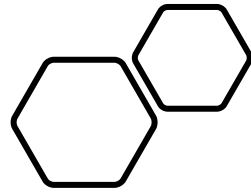
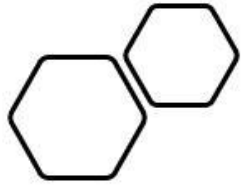


Figure 4 Images of a person wearing Model 2 of the proposed face shield. (A) Front, (B) front oblique, (C) back oblique views. This model completely covers the front part of the head, face, and neck like Model 1 (A, B). However, there are wide openings on the lower half of the back (C-1) and on both sides at the top (C-2), which prevents heat and moisture build-up by allowing air ventilation through the openings. (D) Image of collecting a swab from the nasopharynx of a person wearing Model 2 of the face shield. Nasal swabbing for viral testing (such as polymerase chain reaction testing) can be conducted on a patient wearing the Model 2 shield through pre-cut incisions near the nasal orifices (black arrow). The cotton applicator is inserted through one of these incisions, which are otherwise closed but can be opened easily by applying pressure with a finger to remove the covering. This shield could reduce the clinician's exposure to droplets from the patient (such as if he or she coughs or sneezes) when collecting the samples.

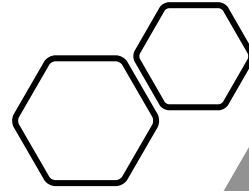


本日の内容

- 本企画の目的
- 先行研究の紹介
- JSHGM会員向け調査結果
- テーマ別ディスカッション
- 質疑応答
- **まとめ**



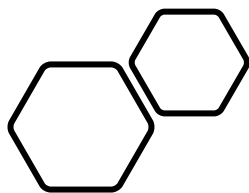
まとめ



また、
**病院管理・経営、組織運営、
デザイン、総合診療教育**など
システムや教育に関わる
テーマも頻度が高かった。

総合診療医の
多くは
**臨床研究を
実践**

臨床疫学
診断医学
症候学
在宅・地域医療
総合診療教育
身体診察
診断エラー



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