

Table 1 Clinical vignettes with level of agreement and imaging modality (after third round of voting).

Question No.	Vignettes	Agreement	Answers
1	A 35-y-old man with 2 previous kidney stones that passed spontaneously presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Moderate	5 POCUS, 4 no imaging
2	A 55-y-old man with 2 previous kidney stones that passed spontaneously presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Moderate	5 no imaging, 4 POCUS
3	A 75-y-old man with 2 previous kidney stones that passed spontaneously presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Good	7 RDCT, 2 ultrasonography (1 POCUS, 1 RPUS)
4	A 35-y-old man with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Perfect	9 POCUS
5	A 55-y-old man with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Excellent	8 RDCT, 1 POCUS
6	A 75-y-old man with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Perfect	9 RDCT
7	A 35-y-old man with 2 previous kidney stones that passed spontaneously presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics. Ultrasonography is performed; there is hydronephrosis on the side with the pain, and a stone is not visualized.	Perfect	9 no imaging
8	A 35-y-old man with 2 previous kidney stones that passed spontaneously presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain	Perfect	9 no imaging

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	is relieved after intravenous analgesics. Ultrasonography is performed; there is no hydronephrosis, and a stone is not visualized.		
9	A 35-y-old man with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is not relieved after intravenous analgesics.	Perfect	9 RDCT
10	A 35-y-old man with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics. Ultrasonography is performed; there is hydronephrosis on the side with the pain, and a stone is not visualized.	Excellent	8 no imaging, 1 RDCT
11	A 35-y-old man with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics. Ultrasonography is performed; there is no hydronephrosis, and a stone is not visualized.	Excellent	8 no imaging, 1 RDCT
12	A 35-y-old woman with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. She reports nausea with vomiting and has hematuria on urine dip. She has no abdominal tenderness. Her pain is relieved after intravenous analgesics.	Excellent	8 ultrasonography (6 POCUS, 2 RPUS), 1 RDCT
13	A 35-y-old man with 2 previous kidney stones that passed spontaneously presents with left flank pain during the last 2 days. He reports nausea but no vomiting and has hematuria on urine dip. He has some left lower quadrant abdominal tenderness. His pain is relieved after intravenous analgesics.	Good	7 POCUS, 2 RDCT
14	A 35-y-old man with 2 previous kidney stones that passed spontaneously presents with left flank pain during the last 2 days. He reports nausea but no vomiting and has hematuria on urine dip. He has some left lower quadrant abdominal tenderness. His pain is relieved after intravenous analgesics. Ultrasonography is performed; there is hydronephrosis on the side with the pain, and a stone is not visualized.	Excellent	8 no imaging, 1 RDCT
15	A 35-y-old man with 2 previous kidney stones that passed spontaneously presents with left flank pain during the last 2 days. He reports nausea but no vomiting and has hematuria on urine dip. He has some left lower quadrant abdominal tenderness. His pain is relieved after intravenous analgesics. Ultrasonography is performed; there is no hydronephrosis, and a stone is not visualized.	Moderate	5 no imaging, 4 RDCT

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16	A 35-y-old man with no history of kidney stones presents with left flank pain during the last 2 days. He reports nausea but no vomiting and has hematuria on urine dip. He has some left lower quadrant abdominal tenderness. His pain is relieved after intravenous analgesics.	Excellent	8 RDCT, 1 POCUS
17	A 55-y-old man with no history of kidney stones presents with left flank pain during the last 2 days. He reports nausea but no vomiting and has hematuria on urine dip. He has some left lower quadrant abdominal tenderness. His pain is relieved after intravenous analgesics.	Perfect	9 CT (7 RDCT, 1 NCCT, 1 CT IV CON)
18	A 75-y-old man with no history of kidney stones presents with left flank pain during the last 2 days. He reports nausea but no vomiting and has hematuria on urine dip. He has some left lower quadrant abdominal tenderness. His pain is relieved after intravenous analgesics.	Perfect	9 CT (5 NCCT, 4 CT IV CON)
19	A 35-y-old woman who is 10 weeks pregnant with no history of kidney stones presents with an acute onset of right flank pain during the last 3 h. She reports nausea with vomiting and has hematuria on urine dip. She has no abdominal tenderness. Her pain is relieved after intravenous analgesics.	Perfect	9 ultrasonography (8 RPUS, 1 POCUS)
20	A 35-y-old woman who is 10 weeks pregnant with no history of kidney stones presents with an acute onset of right flank pain during the last 3 h. She reports nausea with vomiting and has hematuria on urine dip. She has no abdominal tenderness. Her pain is relieved after intravenous analgesics. Ultrasonography is performed; there is hydronephrosis on the side with the pain, and a stone is not visualized.	Perfect	9 no imaging
21	A 35-y-old woman who is 10 weeks pregnant with no history of kidney stones presents with an acute onset of right flank pain during the last 3 h. She reports nausea with vomiting and has hematuria on urine dip. She has no abdominal tenderness. Her pain is relieved after intravenous analgesics. Ultrasonography is performed; there is no hydronephrosis, and a stone is not visualized.	Excellent	8 no imaging, 1 RPUS
22	A 35-y-old woman who is 30 weeks pregnant with no history of kidney stones presents with an acute onset of right flank pain during the last 3 h. She reports nausea with vomiting and has hematuria on urine dip. She has no abdominal tenderness. Her pain is relieved after intravenous analgesics.	Perfect	9 ultrasonography (8 RPUS, 1 POCUS)
23	A 35-y-old woman who is 30 weeks pregnant with no history of kidney stones presents with an acute onset of right flank pain during the last 3 h. She reports nausea with vomiting and has hematuria on urine dip. She has no abdominal tenderness. Her pain is relieved after intravenous analgesics. Ultrasonography is performed; there is hydronephrosis on the side with the pain, and a stone is not visualized.	Perfect	9 no imaging

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24	A 35-y-old man was treated in the ED the previous day with an acute onset of right flank pain, and a CT was performed that showed a 4-mm stone in the proximal right ureter, with some hydronephrosis. He presents today with recurrent, severe right flank pain.	Perfect	9 no imaging
25	A 12-y-old boy with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Perfect	9 ultrasonography (7 RPUS, 2 POCUS)
26	A 12-y-old boy with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics. Ultrasonography is performed; there is hydronephrosis on the side with the pain, and a stone is not visualized.	Perfect	9 no imaging
27	A 12-y-old boy with no history of kidney stones presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics. Ultrasonography is performed; there is no hydronephrosis, and a stone is not visualized.	Excellent	8 no imaging, 1 RDCT
28	A 35-y-old man with kidney stones who underwent shock-wave lithotripsy without stent placement 2 days ago presents with an acute onset of flank pain during the last 3 h. He reports nausea with vomiting and has hematuria on urine dip. He has no abdominal tenderness. His pain is relieved after intravenous analgesics.	Good	7 ultrasonography (6 RPUS, 1 POCUS), 2 RDCT
29	A 35-y-old man with a 6-mm left-sided ureteral stone diagnosed by CT underwent stent placement yesterday. He presents with left flank and suprapubic pain worsening for the past 24 h. He has some nausea without vomiting. He has microscopic hematuria, but no abdominal tenderness. His pain is relieved after intravenous analgesics.	Perfect	9 POCUS

POCUS, Point-of-care ultrasonography; **RDCT**, reduced-radiation-dose CT; **RPUS**, radiology-performed ultrasonography; **IV CON**, intravenous contrast.